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AND

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A COMPLETE SYSTEM OF PHRENOLOGY.

(*Continued.*)

An individual, holding high station in church or state, gratifies his own pride the more he can elevate his master, and so his veneration becomes excited, as the minister of a weak master he would not feel his own dignity, and destructiveness will then combine to punish those who will not bow down and worship as they are taught, and yield a blind obedience to the ruling powers.

ANTAGONISTS.—The principal antagonists to the undue activity of veneration, will be found in the reflective faculties, the perceptive faculties, which take cognizance of the attributes of bodies, rather aid the action of veneration; but, it is reflection, which seeking for the causes, and tracing out the relation between facts and the sources from whence they spring, destroys the idols which ignorance and credulity have created, whether they be books, stones, customs, or carved blocks of wood. Reflection would confine veneration in its action to parents, age, experience, wisdom, and in fact, only sanction respect for what is really superior, and so proved to be, that all the world may appreciate the excellence: all blind gratification of the feelings, tend to impede man's progression.

MANIFESTATIONS.—This faculty shews itself under as many phases as there are varieties of organization, and circumstances in which individuals can be placed, giving rise merely to the blind feeling or inclination, connected with its activity, but in no ways determining the merits of the object to which it is addressed, thus the feeling of veneration may be equally strong in the individual who bows before a rudely carved block of wood, or any Indian idol or symbol, and the one who reverentially observes the forms, and worships the images, and ceremonies of the Catholic or reformed church, or any of the many and almost endless variety of dissenting churches. The feeling may equally exist, as in these cases, in the worshipping of any other system, and its propounders; as we see in those French and English philosophers, who have been denounced as atheists, because they had a tendency to act with deference, respect, and submission, to other objects, than those to which the same feeling had been directed in their accusers.

It will be seen that the existence of this feeling is necessary to keep men in a state of society. Respect and veneration must be felt for the laws, law makers, and executors; but, unless this feeling acts in combination or through the intellect, it becomes the means by which people are held in slavery, by their blind veneration for established forms and things, independent of their worth or merit; and, in all ages have crafty rulers thus enslaved the people, and encroached upon their rights; that social order and government may be established on a rational basis, the people's intellect must be cultivated to direct their feeling, and the men in power must act and govern in accordance with the intellectual and moral laws of human nature. Men will then approve, and not only find a pleasure in obeying laws, based on this just foundation, but each will for his own sake become a maintainer and avenger of the laws, should they be in any way evaded or violated. When the people's intellectual power advances faster than the improvements in legislative enactments, they do not yield obedience blindly to that which does not satisfy their reason; they demand right, not precedent, and if they are attempted to be restrained by force, the attempt can only partially succeed, till there are enough enlightened; when a natural convulsion is the unavoidable result, of the mind of many forcing onwards the few who would remain stationary The revulsion may be one of moral, or of physical force, but come it must unless the rulers of a nation are enlightened enough to modify the institutions, in relation to the increasing intelligence of the age.

This faculty combines with all the other feelings and intellectual talents, and produces a modification of their manifestations; with large combativeness and destructiveness, much respect is felt for warriors, and eagerness will be shewn to see them, to pay them marks of respect and honor, in proportion to the extent of misery and devastation they have produced, and the predominance of these feelings over the reasoning powers of the adorators; with large amativeness, deference will be paid to the opposite sex; with acquisitiveness. the man, who has accumulated most money, and who is known to possess his millions, will be bowed to, and looked up to as a superior being, without any investigation as to the means by which the almost boundless treasure has been acquired. In its harmonious action, it gives general respect and deference, in actions and words, towards rank, age, or ability; combined with self-esteem, it gives a love of the unique, with a desire for exclusiveness, and this combination is perhaps the cause of the dread of innovation, an innate love of things as they are, and a dread of admitting others to privileges, considered to be the right of an exclusive class; when in action with love of approbation, it leads to great deference being shown to others, it is difficult for an individual so organized to oppose the opinions or wishes of others; this is a good organization for domestic servants, if there is general moral feeling enough to restrain sycophancy, even to falsehood. This organ is generally more developed in the female than the male head, and their general respectful and deferential deport- is known, their fond clinging to what they have been taught to love and respect; the man in marriage promises to love the wife as himself, the wife promises to honor and obey the husband, which bespeaks a natural condition of respect, for which she is fitted by her organization.

Many phrenologists have drawn the inference from the existence of this organ, that there must be a God, and Mr. Combe, among others, maintains this point. We have shewn that this organ is a blind feeling, and can form no ideas at all; if the reverse were true, those with large veneration would have a clear and distinct notion on the subject, while those with small would be left in the dark upon this point; but, observation proves that the idea formed of the ruling power depends upon the intellect. Men, with an equal share of veneration, have maintained the most opposite views in this respect, according as the intellect, and other moral powers, or the animal feelings, have predominated. We have had representations of a cruel and jealous God, annihilating his tens of thousands: we have had a merciful, kind, and forgiving judge, leading all in the gentle bonds of love, to an everlasting scene of bliss and enjoyment, but these enjoyments have been varied according to peculiar views; some have made them to consist in eating and drinking, while others have imagined heaven to be the enjoyment of angelic women. In our own country the notion (albeit we are not a musical nation) is more frequently associated with singing and playing trumpets—others have represented God as good, but strictly just, dooming those who offend to everlasting torments and suffering; in fact, there have been as many different notions on this subject as individual natures, if endeavoured to explain that which is beyond the ken of man's vision, as he is at present constituted. In proportion to the development of this organ in children, other things being equal, will they be observed to be more or less tractable, and obedient to their teachers and elders?

Examples.—We may particularly mention Walter Scott, as an example—in the busts of his head this organ is shewn as most remarkably developed—this organ is exaggerated in most of these busts, but the organ was very large in his case; and the writings and life of this eminent man shew how much he was under the control of this feeling. It is, also, very large in the Abbe Gaultier, governor of the deaf and dumb school, in Paris. It is large in the head of Spurzheim, who displayed in his general character, much veneration and respect; the negro Eustache, Dr. Dodd, and in fact, examples may be found of this organ being large in the heads of all classes of people. Many brigands and notorious robbers have this organ; and many, when removed from the exciting circumstances to their animal feelings, have shown much devotional ardour. Some among robbers never would commit sacrilege—others would bestow part of their plunder on religious institutions, or even pause in the commission of a crime, to cross themselves. We need not go among the mountains of Spain or Italy, for examples of religion and robbery mingling in men's minds,—in our country how many thousands may be pointed at who observe in accordance with their feelings, religious observations at certain periods, and are principally engaged at other times in taking advantages in trade, or professionally, that is, morally, robbing; although, they too often contrive to evade the laws of man's make, and as far as gratification can make a man happy, they possess every possible earthly happiness, and appear to live on to a good old age, undisturbed by stings of conscientiousness; their veneration manifesting itself in an increased degree, as old age comes on, and something like a retribution is often made, by building churches, and by liberal subscriptious to charitable institutions. Oberlin had a very strong feeling of veneration, and the organ was very large—in connection with his firmness it became the means of the wide-spreading blessings he disseminated, but always was he guided by an enquiring intellect.

Animals.—To many it appears somewhat akin to profanation, to assert that animals have veneration; but, if facts shew that they have a feeling evidently the same, under modifications resulting from their peculiar natures, we need not hesitate to admit from any fear of degrading man by a comparison with brutes. Among many of the vertebrated animals, a chief is chosen, and the others pay to him a deference—this may be seen in flocks of sheep and troops of wild horses.

To be Continued.

ON THE INFLUENCE OF "EDUCATION AND CIRCUMSTANCES" IN MODIFYING CHARACTER AND ORGANIZATION.

(By the Editor.)

It will be in the recollection of our readers that at page 333 of the first series of the Journal we expressed an intention of laying before them, at the termination of our lecture, our ideas on the important subject of the influence of education in modifying character and organization. We now proceed to redeem that promise. We feel particularly anxious to call attention to this subject, because it is really a great stumbling-block in our way. We have much to say upon many questions of great importance in connection with phrenology, and we have no fancy for vague argumentation, or unnecessary controversy. We wish to arrive, as speedily as practicable, at decided results, one way or the other. If our views be true, the sooner they are received the better; if otherwise, the sooner their fallacy is made apparent the better. Now, there cannot be a greater obstacle to the realization of such a wish, than to admit into discussion vagueness of any kind. How can controversies be otherwise than interminable if we admit, as necessary elements of our calculations, forces of which no one knows the precise value, of which every reasoner makes a more or less different estimate. To us it appears that the present system of phrenology is, in many essential points, peculiarly obnoxious to the charge of vagueness, and that the most pernicious results are the consequence. We do not blame any one for this, it is quite natural that it should be so; indeed, in an enquiry of this nature, the clearest and most profound thinkers cannot hope to avoid all faults of this kind. But that is no reason why we should not perpetually struggle against them. Only in proportion as we do avoid them is our knowledge of practical utility, and likely to be progressive. The real foe to progress in philosophy, in mental philosophy especially, is not ignorance, but false knowledge. Bestow talent and curiosity on mere ignorance, and she will soon attain to knowledge; bestow them upon false knowledge, and endless deviations from truth may be the only consequence. A single mystification may arrest the march of philosophy for centuries. Our only safeguard, then, lies in a perpetual watchfulness over ourselves and others, and a determination never to rest satisfied with any results, or statements, that are not definite and clear. We may not always be successful in our endeavours, we may often deceive ourselves, but we are in the right path. Whatever is gained in any other path is the result of accident. When we think of the vastness and novelty of the task which the founders of our science had to perform, it would be most unreasonable not to make every allowance for the imperfections which may be discovered in their system. But we their desciples, are not entitled to any such indulgence. We have no herculean task to perform. We have time and opportunity enough to look narrowly into all details; we are quite numerous enough to perfect phrenology, if we will only work judiciously, and emulate the independence of thought, and love of truth, which distinguished its founders. Surely hundreds of labourers may do something valuable, when two have done so much. We trust, then, that the present attempt to throw light upon some of the obscurities of our science, will arrest the attention of our brethren, because, from the course we have adopted, and the principles that guide us, these papers can hardly fail of being of some advantage, even if we are entirely unsuccessful in supporting our own positions. Those who write with an anxious and paramount desire of arriving at entire accuracy, can hardly write altogether in vain. Some truth must be made more evident by their labours, even though that truth may bear against themselves.

The subject we have now in hand, though of the greatest importance in a phrenological point of view, is far from being a merely phrenological question. It bears, more or less, upon every branch of natural history, and has played a part of infinite importance in the systems of many philosophers. What is there in the myriad varieties of animate nature, that the influences of circumstances and education have not, according to some, accounted for? They have created instincts and organs, they have converted fishes into reptiles, reptiles into quadrupeds, quadrupeds into monkeys, and monkeys into men; and, even at the present day, few persons can see any difficulty in their blanching the negro, or blackening the caucasian, in their converting the savage to civilization, and every civilzed man into a philosopher. One would have imagined that influences of such alleged importance would have been long since carefully studied and accurately defined. That we should be either able to say how it was that they produced the results attributed to them, or, if this was not possible, that we should, at least, have accumulated numerous, plain, and well sifted facts, and have taken every reasonable precaution against error, before relying with such confidence upon mere circumstantial evidence. And yet nothing of the kind has been done. So far from it, these views are, at the best, founded upon an extremely limited range of facts, all explicable upon a very different principle, while they are at direct variance with a far larger class of facts. Some portions of them are, to the last degree, theoretical and gratuitous; they can hardly claim the countenance of a single well ascertained fact. Indeed, at the present day, it would be wholly superfluous to reason against them. How is it then that such views have come to be so generally received, and that some of them have had such a long and unquestioned sway? There are many reasons for this. Some of them carry a certain air of plausibility about them, while their vagueness enables each one to adapt them to his own peculiar fancies, and by accounting, in some degree, for all the more superficial difficulties, they save the trouble of deep thinking, or close observation. Others are flattering to the self-respect of the masses of mankind; others harmonize with prevailing religious views; and

others again are acceptable to certain parties, because they are in opposition to these same views. There are, in fact, abundant reasons for their acceptance, without admitting their truth.

Ir is by no means our purpose to deny all influence to education and external circumstances, in the modification of character and organization. On the contrary, we admit it to be extremely important, in several respects, though, on the whole, infinitely less so, than has generally been thought. However, our present object is investigation, rather than the maintenance of any particular theory. We do not even know the exact results at which we shall arrive by the close of the argument. We have, of course, our opinions upon the matter, at the present; but, in the case of a difficult investigation, it is not the first time we have sat down to write with one opinion, and finished with the opposite. Should such be the case with this discussion, our readers will not have to charge us with shrinking from any of the consequences of the argument. We have really no feeling in the matter that can for an instant be put in competition with truth, and we trust our readers will meet us in the same spirit, and give whatever aid may be in their power, towards the correct solution of a question, so closely connected with their favorite science.

We have not, in the present case, traced out for ourselves the plan of a very laborious or formal essay. However desirable such a thing might be, we have not the leisure for accomplishing it. Indeed, we have so much to say to our readers on a variety of subjects, that we shall be obliged in most cases, to sacrifice our desire for completeness, and endeavour, simply, to be useful. We shall, however, in the present instance, proceed with as much regularity as circumstances will permit. We purpose to arrange our remarks under three principle heads; examining, in the first place, the influences of education, properly so called; in the second, the influences of social position generally; and in the third, those of a more purely physical character. Each of these divisions will embrace several subordinate sections.

Part 1st.—Section 1st.

The influence of education on the external senses.

Some naturalists have gone so far as to assert, that external circumstances, necessity, exercise, attention, and so forth, have actually created many, if not all our instincts and faculties. This opinion must, at the present day, appear too extravagant to need any formal refutation. There must be few persons, having the slightest pretensions to anatomical or physiological knowledge, who are not quite satisfied that the human mind acts entirely through the instrumentality of material organs, and that its manifestations are, at all times, dependent on the precise condition of those organs. From this it follows, that the development of the organ must always precede the mental manifestation; and we find, in point of fact, that until an organ approximates to completeness, no manifestation whatever of the power dependent on it takes place, however favourable circumstances may be. Thus, though the cerebellum has considerable development in infancy, no manifestation whatever of sexual feeling takes place; and yet, the child is as completely surrounded by sexual excitements, as the adult. Or let there be a slight imperfection in the visual or acoustic apparatuses, and who does not know, that the constant blaze of sunshine, or the eternal roar of Niagara, would utterly fail in awakening in the mind, the faintest idea or sensation of light or sound? Equally striking is the case of certain idiots. Placed in the most favourable circumstances, from infancy to old age, they remain as unconscious of certain ranges of thought and feeling at the termination of life, as they were at its commencement. And yet the corresponding organs had a certain amount of development. It may, perhaps, be objected, that a peculiar deficiency or obstruction in organization, might be a greater obstacle to the force of circumstances, than an entire deficiency, and that it might be easier to create than to cure. If the question was to be one of mere surmise, an objection of this kind might be tolerable enough. But such is not the case; it is one which permits a direct appeal to the evidence of facts. To frame a theory upon mere hypothesis, and support it by mere surmises, may be somewhat excusable when we have no better resources at our disposal; but to oppose such a theory to one supported by a numerous array of facts, would be absurd in the extreme. It will, however, be quite time enough to consider the force of such objections as these, when we find them supported by some direct evidence. At present we shall merely cite against them the following series of facts. It is universally found, that organic development preceeds mental manifestation, and determines its character throughout the whole period of existence. It is found that whenever any organ is complete at birth, the corresponding mental manifestation is equally so, anterior to all education, instruction, or exercise. It is also found that each organ has its appropriate excitant; that this excitant can act upon that organ only; and, besides, that it can only excite it when the organ is in certain states of development and health. If things be thus, it is self-evident that no excitant can create an organ. These few remarks are more than enough upon the present point; the more especially as every subsequent argument will have a direct bearing upon it. If we can show that education and circumstances have but a very limited influence in improving organs already in the most favourable state for their action, *a fortiori*, must they be powerless when there is no organization at all to act upon. We shall proceed, then, at once to our proper subject.

It is asserted, that all our faculties may be greatly improved by proper exercise; that their natural condition gives but a faint idea of the state to which education may carry them; that, in fact, uncultivated, they are like marble in the quarry, or the diamond in the rough. Now, there are certainly many appearances in favour

of these assertions. It is unquestionable that a man's capacity in the aggregate, as well as particular kinds of talent, may, within certain limits, be greatly increased by cultivation. No one can possibly doubt of that. But the question is, does the change result from a positive, and great increase of power in the individual faculties concerned; or is it rather a consequence of the increased readiness with which various faculties mutually aid each other, together with the immense advantanges resulting from the increase of knowledge that always attends judicious exercise? This is the point to be determined. We shall commence our reasonings with the external senses, and from them proceed regularly to the other intellectual powers, and subseqently to the feelings, and it must be borne in mind, that the assertions we are about to examine have a universal application; that they have not been applied merely to one power, or set of powers, but to all powers, and their organs. And this is so far right. There is no apparent reason why exceptions should be made. If one mental organ may be increased in power and activity by proper exercise, there appears no reason why every one should not be capable of similar and equal improvement. But if, on the other hand, it can be shewn that the utmost amount of exercise fails in producing any increase of power in a certain organ, there is equal reason for generalizing that fact, unless, indeed, it can be shewn that there is some decided peculiarity in the case, some very clear evidence against its applicability to other organs. But if the same can be proved of many organs, the probability of its universal application becomes proportionably increased. We have now to consider whether such a thing can be proved at all, and if so, of how many faculties it can be proved.

(*To be continued.*)

THE PEOPLE'S PHRENOLOGICAL JOURNAL.

The last number of the Journal having announced the transfer of its editorial management the increase in its size, and other contemplated improvements, there seems but little that requires, from us, any further explanation;—our remarks, therfore, on the present occasion, shall be very brief.

The Journal, in our hands, will be conducted upon the same principles of independence, and fairness, which have hitherto characterized it. We shall never hesitate to announce, and advocate our own opinions, freely, and fully,—but we shall, at the same time, be always ready to afford to others, every facility, in our power, for the announcement, and advocacy of theirs. Every communication of merit will be welcome to our pages, however it may differ from our own views, or those of other phrenologists, provided, of course, it be unobjectionable on the score of controversial, and social propriety. We have no sympathy, whatever, with that spirit which is, at present, subdividing phrenologists into so many jarring, if not intollerant sects. Our object is simply to arrive at truth, as speedily, and completely as possible: whether it be found in this quarter, or in that quarter, is, after all, a matter of very secondary consequence.

The increased size of the work, and the time at our disposal, will enable us to introduce some necessary improvements. We shall have much to say in the way of criticism, and we have a variety of novel views to bring forward, which will, we trust, give rise to many interesting communications, and discussions. But it is unnecessary to dwell upon these points now. Our readers will soon be in a condition to judge for themselves; and it is always more agreeable to give deeds, than promises.

The subject of mesmerism is, at present, occupying so much of the attention of phrenologists, and its bearing upon the science is so much a matter of dispute, that our readers will naturally be anxious to know how we shall conduct ourselves in regard to it. We have to observe, then, that we are believers in the reality of the mesmeric influence, generally, and, moreover, that we have seen sufficient to satisfy us that the cerebral organs may be specially excited by it: but we differ extremely from many of the conclusions arrived at by the generality of phrenomerists, nor do we see the least evidence in favour of that multitudinous array of organs which some of them have introduced. We are not at all disposed to question the facts upon which these various opinions are founded: we merely dispute the accuracy of the deductions made from these facts. To us it appears that the phenomena following the excitation of particular organs are, in almost all cases, to say the least, extremely complex; that, consequently, wherever an organ is excited, others, whether near or remote, whether by what is called sympathy, or by the direct influence of the magnetic current, enter, into action also, and, therefore, that in almost all cases, the nicest discrimination, and the most careful analysis, are requisite before we are entitled to assign to different organs their share in the phenomena, or pronounce upon the existence of new faculties. Such are our individual opinions on the matter. We look upon the general question of mesmerism with the greatest interest, but we are not by any

means sanguine as to its becoming a great source of phrenological discovery. At the same time we shall not be surprised if the result be otherwise when experiments shall be conducted with all the philosophical rigour which the peculiar nature of the case requires; nor shall we be astonished if valuable truths are occasionally developed, even through the agency of the loose and random experiments that are usually made at present. Upon various accounts, then, we feel greatly interested in the progress of me-meric experiments, and we shall be happy to receive any commications on the subject that are likely to benefit or interest our readers. But we shall jealously watch the phrenological bearings of these experiments; for we think the present, emphatically, a period in which phrenology requires to be protected against its friends. In making this assertion we do not forget that we are ourselves in the class of innovators, and that many will think we require to be watched as well as our neighbours. On the contrary, we wish this to be continually borne in mind; and as our only object is truth, we are anxious that all our views should be subjected to the most rigid and jealous scrutiny. All we ask for is, that they may not be rejected *without* scrutiny.

We have now only to add that no labour or time will be spared on our part, to render "The People's Phrenological Journal" deserving of the support of all interested in the advancement of phrenology.

L. Burke.

Our readers may remember that some enquiries of ours, inserted at page 320, No. xxvii. of the Journal, respecting Mr. Atkinson's views of the functions of the cerebellum, were answered by the publication of the paper read by that gentleman before the late meeting of the Phren. Association. It was our intention at the completion of the paper, to have made some remarks upon the subject of the new organs mentioned in it, but circumstances have prevented this intention from being carried into effect, as early as we could have wished. We now, however, proceed to fulfil our promise in reference to the subject.

We have been much interested by this paper in many respects, dissatisfied in others. Its most obvious defect, is the pompous and oracular tone which pervades the whole of it. It is annoying to find a fault of this kind, which might have been so easily avoided, marring the effect of what would, otherwise, be a very interesting communication. Such a fault in a person of inferior abilities, would be simply amusing; but Mr. Atkinson is a clever men, a good reasoner, and, apart from this peculiarity, a clear, pleasing, and forcible writer, and, therefore, one can hardly avoid being a little angry with him, when we see him committing such a *blunder* as this, for it is, in truth, more than a fault. No man, however great, can afford to announce his opinions in this style. Mere bombast may pass very well with some readers, but this way of laying down the law immediately, and invariably, arouses a feeling of opposition in all who do not happen to have some special sympathy with the writer, or with his opinions.

There are a variety of matters alluded to in this article which are foreign to our purpose. With many of its opinions we of course agree; in regard to others, those especially relating to the question of materialism, we differ greatly with Mr. Atkinson. However, we shall say nothing upon these matters at present. The paper, on the whole, is written with great clearness and precision, but there is one portion of it to which the remark appears by no means applicable, and, most unfortunately, that is the verypart which it is of most consequence to understand—that in which he describes the situations and functions of the new organs which he has discovered in the cerebellum. The passage in question is as follows:—

"There are four great primitive powers in the cerebellum, besides amativeness. That portion nearest the ear, being the desire of muscular action, and this seems to be divided again; a small part quite beneath the ear, possibly having relation to the action of physical destruction, and the rest to that of physical contention, opposing in action, tugging, fighting, and contending. The primitive powers, probably being the simple desire of action, and again, to contend or overcome: we obtain the single action of these, or indeed any other organ, best in those who are not very excitable, whose combinations are not so rapidly induced as in some. In fact, these would be to the more physical powers, so to speak, what destructiveness and combativeness are to the mental,—they are quite distinct. At the top of the cerebellum, half-way between the ear and the occiput, is the organ of muscular sense, a power chiefly giving a knowledge or feeling of the state of the muscles, and of their power to act. Beneath this is muscular power, giving strength and force, inducing a desire to exert it, in working, walking, lifting, &c., according as it may be directed by other powers. And in the centre we have amativeness, and a physical sense, a sense of the functional condition—the feeling of heat and cold, and pain, of health and disease, or of the general internal and physical condition of the body, without reference to the muscles. Here, then, we seem to have completed, in a most beautiful and satisfactory manner, what was deficient, and what has been the cause of

so much controversy—a knowledge, the importance of which to our health and happiness we can scarcely too highly appreciate."

This is all the information that is given us respecting the nature and functions of these organs—Mr. Atkinson seems to consider it abundantly sufficient. To us it is the very reverse. We can only arrive at one of two conclusions in reference to it, either we do not understand it, or it is most unphrenological. We are perhaps dull of comprehension in the case. We suppose it must be so, for Mr. Atkinson assures us that nothing can be more certain, or satisfactory. We shall endeavour, hereafter, to dissect this statement; but in the mean time the reader will naturally ask how has Mr. Atkinson ascertained these things? Upon what facts does he found his conclusions, and by what arguments does he shew that these conclusions necessarily follow from his facts? Why, a mesmerized lady told him all about the matter!—told him the situation of the organs, and the functions of the organs. He had nothing to do but to ask questions, and register her answers. Just as the current of conversation happened to call into action different organs, did the lady, we are told, point to their exact localities, of her own impulse, without any guidance or previous suggestion whatever. The case, indeed, as here related, is singular and interesting, and we have not the least doubt that Mr. Atkinson has related it with perfect fidelity, as far as his own impressions are concerned: at the same time, it is impossible to avoid smiling at the enthusiasm which leads him to behold, in a mesmerized female, an unerring expounder of the mysteries of mind. It was all the same to her, he says, whether the case was difficult or easy, whether she spoke of a known power, or a new one, every thing was told with equal ease, with equal clearness, and with equal accuracy! But let us hear Mr. Atkinson himself.

"When I enquired about the muscular powers, this lady at once pointed to parts of the cerebellum, and described the peculiar functions in the same impressive manner, and with the same readiness as on all other occasions: it was all the same to her, a known power or a new one, were spoken of with precisely the same ease and care, for she spoke only from what she felt, and of what she was ignorant of quite, in her ordinary condition, and of that of which I had not the least conception. I was much perplexed with her descriptions at first, it seemed so to war against our previous ideas; but I persevered, and enquired again and again, in every possible way, every word being taken down at the time. I could detect no error; her explanations were so clear, so logical, and so beautifully expressed, that I could not hesitate to receive what was told me as a most important revelation."

It is a pity that Mr. Atkinson has not furnished us with some of these clear and logical explanations, for the account before us must be considered meagre indeed, when it is remembered that we are called upon to receive, on the faith of it, four or five new organs into our catalogue. To be sure Mr. Atkinson tells us that if we are not satisfied, we may go and experiment for ourselves. This certainly is a very simple way of settling the matter, and it might be reasonable enough in a case in which opinions were incidentally alluded to. But where they are brought forward so directly, and emphatically, as matters that admit of no reasonable doubt whatever, people have a right to expect that they shall be, at least tolerably well supported by facts, or arguments, and by both, when the case admits of it. Mr. Atkinson *tells* us, that the proofs of the truth of his opinions are most abundant, he tells us the different sources from which these proofs are derived, and the kind of experiments to be performed in order to obtain them; but he does not furnish us with any thing that can be called a statement of facts. If we adopt his opinions, we must do so upon faith; not upon the faith of his senses, merely, but upon that of his judgment also. We trust there are but few phrenologists who will be satisfied with this way of settling matters. But perhaps Mr. Atkinson has given us reasoning, if not facts. Nothing of the kind, unless, indeed, the passages we have quoted can be called such. His paper is essentially *didactic*; there is about as much argument in it, as in one of the responses of the Delphic oracle. Now when it is considered that these discoveries were formally laid before, what must be regarded, in theory at least, as an important congress of phrenologists—that they were announced, not merely as conjectural, or probable, but as most certain, as established by the most abundant and satisfactory evidence—it must be confessed that the materials furnished to the meeting to exercise its judgment upon, were, to the last degree, insufficient, while, at the same time, the members were tantalized with the announcement that there was a superabundance of evidence that might have been brought forward. To be sure Mr. Atkinson *alludes* to different facts, that appear to him confirmatory of his theory,—for instance, he tells us;—

"I have excited these powers in children, in their ordinary sleep, and caused them to rise and perform certain movements, and then to lie down again with

out waking. I can produce catalepsy by exciting one power, and remove it by touching another."

"Fatigue will cause pain in the muscular powers of the cerebellum; in fits, pain is often experienced in these parts of the head."

"The action of laughing causes pain in the cerebellum."

"Touch the central organ, and they (the patients) feel pain; remove the finger, and they are again insensible; heat and cold are felt in this part."

"A boy who had one eyelid closed, so that he could not open it for some days, being in a partial mesmeric state, had a pain in muscular sense." &c.

But such vague announcements as these cannot be called a statement of facts. They might do very well in a popular lecture, or addressed to persons disposed to receive opinions on the faith of the speaker, but they are not evidence to those who wish to judge for themselves. After all, we should not of thought of making these complaints were it not for the enormous importance which Mr. Atkinson has attached to these discoveries, and his extraordinary mode of demanding for them the belief and admiration of phrenologists. They have now been announced to the association, in two successive years,—there has been time enough to collect and publish facts in reference to them,—but it would really seem as if Mr. Atkinson did not consider any thing of the kind necessary. Now it must be remembered that it is not every one who has proper opportunities for mesmeric experiments. It is not every one who is *able* to mesmerise—at all events, with sufficient power. Every mesmeriser cannot produce the same effects, nor can every patient be made to exhibit the required phenomena. A phrenologist of the old school might very fairly tell his auditors to make observations for themselves on any particular parts of the head, in reference to alleged discoveries, because the materials for observation are always at hand, and it requires but a moderate degree of skill to judge in strongly marked cases; but things are very different in regard to mesmeric experiments, and therefore, those who call upon us to receive new doctrines on the faith of them, ought to furnish us with numerous, and clearly stated facts. Indeed the very nature of mesmeric phenomena requires that experiments should be stated with minute accuracy. As, however, we cannot have things as we wish in this case, we must take them as we find them, and judge as well as we can by the materials before us. If Mr. Atkinson's opinions are correct, they will of course be consistent with themselves, and in harmony with all known facts; we shall endeavour to ascetain how far this is the case. But as this enquiry will far exceed the bounds of a single article, we shall for the present break off, and resume the argument next week. If we have spoken our opinions thus freely of Mr. Atkinson's paper, it is because we think him worth finding fault with. Had we less respect for his talents and acquirements, we should certainly have dealt far more gently with his communication.

The Phreno-magnetic discoveries which have within the past year or so overflowed the land like a second deluge, have carried in their train one consequence, at least, which is any thing but comfortable or flattering to the old professors of Phrenology. Hitherto Phrenologists with an egregious simplicity for which they richly merit the punishment that now awaits them, have taken it into their heads, pretty nearly as a matter of course, that it was actually the design of Nature, to render their science of practical utility in the every day affairs of life, by enabling them to predict from external appearances, the number, the development, and the functions of the cerebral organs. Nay, they have gone so far, as to imagine that nearly all these organs were already discovered, and their functions tolerably well ascertained; and upon the strength of this conviction they have set to work, to the right and to the left, reading off the dispositions and talents of all that came in their way, from the characters which they imagined the hand of Nature had traced upon the surface of their skulls. Never was delusion more complete. Subjects and operators were equally under its dominion. There were bunglers of course, in the art, but there were also practitioners who were not bunglers, who carried out, ligitimately, the consequences of their theory, and extraordinary were the result of their labours. We have heard character, often in its very minutiæ, read, as from an open volume. We have seen auditors filled with astonishment and enthusiasm, and the tears starting to the eyes of youth and beauty in very awe of the minuteness and accuracy of the revelations made to them. And to think that all this was a pure delusion: that all the while Nature was laughing in her sleeve at the absurdities we were perpetrating: at the infatuation which could believe her capable of thus revealing her secrets! How all parties—operators, subjects and friends, could be thus deceived, we cannot of course conjecture; but deceived they undoubtedly have been most completely, for the discoveries of Phreno-mesmerism prove, as clearly as the light

of day, that it is utterly impossible to predict with the least probability, any thing whatever of character from an examination of the head. Can any thing be more ridiculous than the idea of Phrenologists predicting character, under the impression that there were no more than some thirty or forty primitive powers, when in point of fact, there are hundreds, most of which, nobody had then ever dreamed of, or could by any possibility dream of, truth being in this case, as well as in many others, infinitely stronger than any fiction, Imagine for an instant, a Phrenologist expatiating on a fine development of philoprogenitiveness, extending its sphere of action from the offspring of the patient, to those of friends and relations, to children in general, to the young of other animals, to everything indeed animate or inanimate, that gives rise, even by analogy, to the ideas of youth and feebleness, and then addressing himself to his subject thus: "Madam, your sympathies are liable to be more or less affected by all these objects, as the case may be. If the more powerful and legitimate are wanting, the less so will be made to serve their place. If you have not children to bestow your affection upon, you will surround yourself with *pets* of various kinds, such as chance may throw into your way, or the idiosyncrasies of your character may lead you to select; and upon these you will lavish a love which might, under other circnmstances, have constituted the felicity of a domestic circle." A very fine speech this, Mr. Phrenologist assuredly, but it so happens that the *organ of the love of pets* is in this case down at zero, while its negative is up at fever heat, and the lady must, in consequence, notwithstanding her philoprogenitivenes, utterly abominate all cats and dogs, birds, beasts, fishes, lambkins, monkeys, and the rest of the catalogue of pets, without a single exeption. So much for manipulation. Perhaps you wll say, this organ being small, philoprogenitiveness *could* not have appeared so well developed. Indeed! Just divide the surface of what you call philoprogenitiveness into a dozen or so of parts, and then say whether an organ occupying one such part, might not be obliterated, without the skull being able to indicate any depression? There are organs in the forehead which the point of a pencil will cover. Why should it not be so with the back the head? There are at all events, three or four organs already discovered in the region of of philoprogenitiveness, and, of course, each of hese has its negative, making six or eight in all Analogy will compel us to believe that there are, at the very least, as many more yet undiscovered. If such be the case, it is self evident, that Phrenologists hitherto have been continually liable to the most extraordinary mistakes without having the least suspicion on the matter. It would be altogether too much to fancy that these various organs are always, or ever, so proportioned, as to leave no danger of such mistakes. Now, however, that we possess the knowledge of the existence of so many and such strange organs in all parts of the head, and the all but certainty of the coexistence of still other and stranger ones, as yet unheard of, the Phrenologist, who will nevertheless, venture to speak one single word in respect to the character of an individual from the appearance of his head, must be in the last stage of insanity, or possess the gift of divination. But let us take another instance.—

Here is a man whom Gall would have pronounced as proud as lucifer, and as obstinate as a mule. Poor Gall! "Oh, that he had lived to see this day!." How astounded he would be! Why the man is not in the least proud or obstinate. The organ of *humility*, and the organ of *yieldingness*, or *instability*, or something of that sort are in equal, or perhaps greater development than firmness and self-esteem. Perhaps the latter are decidedly small, and the man a most yielding and humble creature. Poor Gall! it is well for him that he has not lived to see what we have seen.

But here comes another case:—Veneration and marvellousness very large, self-esteem and firmness, very small. What sort of a man is he? Humble? Of course not. The organ of humiltity is very small as well as self-esteem; do you not see the whole space assigned to these organs quite depressed? Well then, he must at least be very fickle, very unsteady, very yielding, sincce the organ of firmness is so small. You are just as far out there also. Do you not know that every organ has its negative, and that as self-esteem is balanced by humility, so is fimness by *instability*? Now as this latter organ is very small, how can the man display with any strength the quality which depends on it? He is very deficient in firmness, and is equally deficient in *unfirmness*. What his character should therefore be, the Phrenomesmerists must say, it surpasseth our understanding.

But we will not continue these illustrations farther on the present occasion. Enough has been said to explain the object we have in view. The careless reader may look upon the above re-

marks as mere *badinage*, or as an attempt to throw ridicule on these modern discoveries—but he is quite out in his calculations. The matter we can assure him is no joke whatever. Besides, it is no part of our plan to meet either arguments, facts, or theories with ridicule. If there be any thing ridiculous in the case, it is not of our creating; we have merely put in juxtaposition, certain things that are, or that are supposed to be facts; if their consequences are absurd, it is not our fault. We have abundant authority for our statement, the inferences we have drawn are inevitable. To be sure, the organ of *instability* is one of our own creating, but then the creation cannot be objected to. Every organ has its carrelative opposing organ: we cannot imagine what the opposing organ of firmness can be, unless *unfirmness or instability*. That the organ does not occur in the lists of Mr. Sunderland, or Mr. Hall, only proves, that these gentlemen have not as yet met with special facts in support of it; but, nevertheless, its existence is a necessary consequence of their principles, and in applying phrenology to practice we must not only admit into our calculatious what is actually proved to exist, but that also of which the exististence is probable. After all, we have but to substitute for firmness and instability, any other recognised pair of organs—such as despair and hope, joy and grief, industry, and relaxation—and the argument will stand precisely the same. And we shall have clearly proved the irreconcileable contradictions that exist between the old and the new phrenology, the utter absurdity of all manipulations, the mesmeric excepted, and the impossibility of obtaining a knowledge of individual character by phrenological means, or, in fact, of rendering this science in any way useful for the purposes of ordinary life. These are sad results, no doubt, utterly subversive of all the long cherished fancies of phrenologists, and a terrible blow to their self-conceit; but it cannot be helped, truth is truth, and we may as well look it in the face at once, since we must meet it sooner or later. There is to be sure one alternative, one means of escaping from this otherwise inevitable evil; but this alternative will not, of course, be accepted, and therefore, virtually, the case is hopeless. We shall, however, state it, and then our duty is accomplished. It is to reject, *in toto*, without any reserve whatever, all that is peculiar in the phrenological views of Mr. Spencer Hall, Mr. La Roy Sunderland, Dr. Buchanan, and their disciples, and a good deal also of what is believed by other phreno-mesmerists. We are perfectly well aware, that to propose a measure of this kind, in the face of such an imposing array of facts, is but "screaming to the hollow winds." Very well, then, away go Gall and Spurzheim, and manipulation, and every thing which is, or may be, in harmony with the spirit of their philosophy. Admit the theory of negative or antagonistic organs, and practical phrenology is the wildest of impossibilities. Admit a few of the new organs, and an infinitude of others will be the logical consequence. No one who knows anything of practical phrenology, will believe it possible to pronounce upon character from an examination of the head, if we admit the existence of a hundred and fifty, or two hundred organs. The task of predicting the results of their innumerable combinations, would far transcend human abilities; the density of the various coverings of the brain would render a knowledge of their individual developments entirely out of the question. This *thumb-nail*, and *pencil-point* work, may answer perfectly in a mesmeric experiment. It cannot be thought of for a moment, for the purposes of ordinary manipulation. Even were the surface of the brain exposed to view, divested of all its coverings, it could not reveal to us the state of development of such small organs as are now admitted. If the antagonistic organs were congregated by themselves in a certain part, or in certain parts of the head, and their positives in others, then, indeed, some distant and conjectural approximations to certain traits of character might be possible. But intermixed as they are now, and moreover, arranged in pairs, lying in complete juxta-position, the thing is out of the question.

Thus, then, stands the case:—Gall, Spurzheim, and manipulation, or Hall, Sunderland, and Buchanan. Gentlemen, choose for yourseves. We shall not presume to decide. It is true we have been extensive manipulators for years: of late, we have never failed to shake the intensest incredulity by the results of a single experiment,—and we have believed it impossible for any antiphrenologist to resist a few such experiments, performed under favourable circumstances. It is not easy for us to believe that all we have seen and heard in this way has been mere delusion,—but this reluctance to admit what is so evident is, of course, a weakness, and we must endeavour to overcome it. We have no wish to fly in the face of facts, more especi-

ally in an enlightened age like the present, in which facts are deified, and when it is a positive crime to take three steps in consecutive argument unsupported by special evidence. We have no fancy for martyrdom, not the least, and we are therefore ready to admit that the only legitimate mode of using facts is to take the very first inference that offers itself to the mind; for, as truth is more powerful than error, it is quite clear that, in their race for precedence, the former must constantly distance its adversary, and always be the first to present itself to the mind. Thus, then, we leave the case for the present.

CORRESPONDENCE.

To the Editor of the People's Phrenological Journal.

ATTRIBUTED CAUSES OF MESMERISM.

Sir,—If you think the following account of a lecture and some mesmeric proceedings which took place at the house of Dr. Partridge, Montague Street, in the presence of a numerous and fashionable circle, who were invited to attend, will interest your readers, you may rely upon its correctness, and your insertion of it will oblige.

The lecture was delivered by Dr. Kinnears, and was the second upon his theory of respiration,—but as the gentleman had stated his ability to expound the causes of mesmerism, much interest was excited to the subject. The lecturer after referring to his previous lecture—in which he had shown that respiration was a process similar to the galvanic action—stated that the use of air in the animal economy was not, as generally supposed, to generate heat, but that it was a factor of motion. The gentleman held up his arm, and said, that the motion was the result of the oxydation, which was effected by the air, of the food he had taken. It did not appear to us, why, if such is the fact, so long as there is food in the stomach, and air to oxydize it, why the arm and other parts of the system are not kept in motion. After recounting many well known facts connected with physiology, as to the drawing an increased supply of the nervous fluid to any portion of the system actively employed, which had the effect of imparting increased power to that portion of the system, in illustration of this fact, we were told, that a man with a large head, who might be dull, if he had the misfortune (query, in such a case) to have his legs shot off, would become a clever fellow—there being a greater supply of nervous stimulus for the head when the legs were gone. We ought to have a few *no-legged* philosophers to fully prove this theory.

The lecturer then stated that the cause of mesmerism—much interest as the subject had excited—was merely a drawing, by friction, to any particular part, an undue portion of the nervous influence,—the power of the operator depending upon the size of his chest, or rather, in the words of the lecturer, "the strength of his internal galvanic battery." Tickling he referred to the same principle, and selected a very stout-looking gentleman who was present, (but who we should not have suspected of being so powerful a tickler,) and said, he believed he would be able to throw his life into his fingers' ends, and tickle any one into convulsions. This tickled the fancies of the audience. The lecturer quite as easily, in his opinion, no doubt, cleared up all the mystery about clairvoyance, and super-sentiency, which so few have seen or believe. It is now, we are assured, nothing at all. The lecturer said any body can become super-sentient with the greatest facility;—it is only necessary to remain in the dark, in a cellar, to eat unwholesome food, and be exposed to the influence of bad air, and *heigh! presto,* you are clairvoyant. But we have no conception how long it is necessary to submit to these conditions;—if a moderate time would suffice, supersentient cases would surely be as common as blackberries, among the destitute, and ill-fed denizens of the metropolis and all other large towns and cities. We were sorry after so much that was interesting and instructive, although theoretical, the Doctor should have endeavoured to explain subjects which, it must be evident to all, he is perfectly unacquainted with;—he may by so doing raise a laugh, or satisfy himself that he is a bold man,—but he will never establish a scientific reputation by mere bold assertion.

After the lecture some mesmeric experiments were exhibited by Mr. Vernon. The *sujet* was in deep sleep in about a minute and a half. She appeared perfectly unconscious to feeling or sound; shewed most marked antipathy to being in contact with any other party than the mesmeriser. Some very interesting phreno-mesmeric manifestations were elicited of the organs of self-esteem, benevolence, combativeness, imitation, &c., in the midst of which Dr. Kennear declared the whole was delusion, and asserted that he could train a patient to exhibit the manifestation of any of the faculties, or of any faculties that had no organ, by touching any part of the body, or a toe nail, and suggesting the manifestation to the patient. This led to some discussion, which affected the girl, who was in the mesmeric trance, and who complained of feeling ill, and some experiments tried of sympathy of taste partially failed.

The result of the evening's experiments were the appointment of a committee of eight gentlemen, of scientific and literary acquirments, to investigate the truth of the Doctor's theory, and the practice of Mr. Vernon, in connection with mesmerism, upon subjects to be selected by the committee, and who are entirely ignorant of phrenology.

Should you deem this worth inserting, I shall be happy to forward you particulars of the progress and result of the investigation.

Your's, obediently, N. O. N.

[We shall be very happy to receive our correspondent's proposed communication.—Ed.]

Mr. HUDSON LOWE on the INTRLLECTUAL FACULTIES.

Time—Duration—Succession—Change.

(*Continued from page* 458)

28.—We might consider all men as divided, according to their mode of viewing and expounding nature, into *draftsmen*, *narrators*, and *preachers*. The draftsman's province is that of the sensible properrties of objects, as extension, figure; the narrator's, the changes and successive phenomena they exhibit; the preacher's, or philosopher's, that of their pure and transcendant relations—a mode of contemplation which almost invariably leads to, or involves considerations expanding the mind's conceptions of harmony and perfection, or aiding it in the guidance of the will. And, according to the degree in which men employ these modes of exposition—the descriptive, the narrative, or the philosophic—must their degree of aptitude for these several modes of apprehension be estimated. The consideration of the profession or occupation to which men belong is of importance, as leading to this inference, in cases where the materials for exact analogies are not at hand. It is a substitute for it with regard to masses. But it is often, most imperfect, not only because casual circumstances have as much influence as original bent in determining men to particular occupations, but, because the whole character enters into the *choice* of these, as well as the intellect, and, because such a man may by the direction of his passions and the force of his will be rendered apt for an occupation, for which his purely intellectual tendencies have no special affinity. Again some of the most instructive and convincing instances may be drawn from the conformities and diversities exhibited by men who adopt the same vehicles of exposition. When the vehicle is the same, essential diversities are the more apparent and striking, as for instance the contrast between Flaxman and Hogarth is more palpable at least to the hasty reader than that between Flaxman and Swift, though the Dean and the painter are twin brothers. And if these men so unlike in all their characteristics, the one soaring into the empyrean, 'alone with the stars,' the other raking with impure fingers in the sewer, thier physical corresponding with their moral differences, the one with a noble dome-like expanse of coronal surface, the other clearly with this surface contracted, (their physiognomies also in harmony, the one expressive of a noble serenity and dignity, the other with truncated features, indicating keen observation directed by gruff acerbity and self-conceit) are found to agree in one intellectual characteristic, not consequent on their occupations, their power of conceiving and embodying action, and also in the corresponding outward indication, the large development of the middle part of the forehead, this correspondence will go further to establish the connexion of organ and function, on account of all the differences which surround it. "Among prerogative instances," says Bacon, "we place first solitary instances, Those instances are solitary which exhibit the nature (or quality) which we seek in those subjects which have nothing else common with other subjects but that quality; or on the other hand, which do not exhibit the quality which we seek in those subjects which, save in this quality, are altogether like other subjects. But it is clear that instances of this kind remove ambiguities, and quicken and strengthen exclusive conclusions, so that but a few of such are worth many others."* To some of these I shall return.

29.—But although general instances derived from the character of men's occupations are not of the same value, as we have observed, with those taken from an elaborate examination of their characteristics, still they are of value. The historian and the politician, the writer of narrative fiction, are all eminently concerned with action and events, and it is therefore a strong confirmation to the view which connects the power of apprehending these with the development of the portion of the brain on each side of the median line, and towards the centre of the forehead, if we find it generally most conspicuously and very frequently predominantly developed in historians, novelists and politicians, although occasionally we might find a man who had done something in these departments without possessing much of the organ, and who on more nearly examining his productions would be found to possess very little of the faculty. In the same way it is a confirmation to phrenology to find form and colour largely developed in the heads of artists, though I should not look to find the first organ large in the head of Martin, who possessing in so unexampled a degree (save in the incomparable Turner) the intuition of space, and a considerable command over the broader effects of colour, fails so miserably in all his attempts at the human figure, nor the second in another artist who I might name, were the occasion sufficient to justify the allusion.†

30.—The instances I shall cite are, firstly, those of writers of narrative, whether historical, fictitious or anecdote, on the last of which varieties I may offer subsequently a few remarks, I shall enumerate those first, discussing afterwards specially some of the instances where the confirmation they assign to the views regarding the organs in question requires it. I have in this, list, David Hume, Edward Gibbon, A. Tytler, Robert Southey, Daniel De Foe, Walter Scott,

* "Inter Prærogativus Instantiarum primo proponimus Instantias solitarias. Eæ antem sunt solitariæ quæ exhibent naturam de qua fit inquisitio in talibus subjectis. quæ nil habent commune cum aliis subjectis præter ipsam illam naturam, aut rursus quæ non exhibent naturam de qua fit inquisitio in talibus subjectis quæ sunt similia per omnia cum aliis subjectis præterquam in illa ipsa natura. Manifestum enim est quod hujusmodi Instantiæ tollunt ambages atque accelerent et roborent Exclusivam, adeo ut paucæ ex illis sunt instar multarum."—*Bacon Novum Organum. Pars Secunda. Aph.* xxiii.

† I allude to Martin's noted defect, because he has been strangely spoken of as raising the standard of taste in *form*!

George Crabbe, Horace Walpole, Sir Nathaniel Wraxall, Sir James Mackintosh, Sir William Jones, Quevedo, Rabelais, Sir R. Steele, Edward Moore, M. D., Le Sage, Schiller, Madame de Stael, Mrs. Elizabeth Hamilton, Isaac D'Israeli, and among living writers, Mr. H. Ainsworth, Sir E. L. Bulwer, Paul de Kock, George Sand, or rather Madame Dudevant.* This is a very miscellaneous company, and to read it over, will probably excite in the reader something like a feeling of the ludicrous, from the strongly contrasted associations connected with the names. The more strong, however, are these contrasts, the more strongly does the common feature of narrative exposition come out, and the development of forehead in their portraits varying so widely in other respects, will also be found to agree with the degree of tendency and power exhibited in this direction. Of writers of narrative, in whom this organ is deficient, I can only find Rousseau, William Godwin, Thomas Moore. In these, or at least, the two first, it is the portion of forehead immediately in the middle line, which is depressed the outer portion is not so. But the deficiency, considering how constantly Rousseau and Godwin abandon narrative for disquisition, and Moore for quotation, insertion of documents, or rhetorical embellishment, is a confirmation of the accuracy of the views entertained by phrenologists. I shall next proceed to consider the development of statesmen and politicians, poets and artists.

* Hume.—Engraving prefixed to his Philosophical Works, in 4 vols., 8vo., and the somewhat more than profile, prefixed to the duodecimo edition of his History. Gibbon:—the engraving after Reynolds prefixed to his "Decline and Fall," in imp. 8vo.; *not* that engraved for Cadell's edition, in one volume, nor for Milman's edition of his life, in which the peculiar protuberance of forehead is lost,—these engravings betray their untrustworthiness by their entire loss of Reynolds's manner,—they *beautify* Gibbon, by paring down his forehead, and adding to his nose. The profile portrait (after a silhouette, by Mrs. Brown,) prefixed to his posthumous works is, also, an authority for the protuberance of Gibbon's eventuality. Tytler:—portrait, in a very excellent series of heads, published by Cadell, then one of the first houses in trade, in 1810, or thereabouts: the best artists were employed on this series, which is full of physiognonomy and character, and is, or was to be picked up *"a vil prix"* Daniel de Foe:—portrait prefixed to the last edition of his works. George Crabbe:—cast of his head in my possession, from Mr. Bally's collection, Manchester. Walpole:—sketch prefixed to his "Correspondence," in 4 vols., 8vo.; the same sketch was also published in the series above named. Sir N. Wraxall:—engraved by Cheeseman, after a drawing by Wright, (same series.) Sir James Mackintosh:—engravings after Lawrence, and after the bust by Behnes Burlowe, (now Mr. Behnes,) prefixed to his life, and to his posthumous "History of the Revolution of 1688." Sir William Jones:—portrait in Lodge's series, after Reynolds. Quevedo:—the only engraved portrait of him, I believe, known: he is represented with an enormous pair of black speetacles: it is somewhat rudely executed,—but the expansion and protuberance of the middle portion of the forehead, is almost as characteristic as in Gibbon. Rabelais:—medal in profile; portrait prefixed to Didot's 8vo. edition of his works. (I am not quite clear as to the authenticity of Rabelais's portraits.) Sir Richard Steele,:—portrait in "Lavater's Physiognonomy," and that prefixed to the "Tatler," in "Chalmers's Essayists." E. Moore, M.D., author of "Zeluco:"—that prefixed to the "World," in the same publication. Le Sage:—a very neatly engraved portrait, appended to a single volume edition of "Gil Blas:" the same face is repeated in a rude wood-cut, in the illustrated edition. Schiller:—portrait after Anton Graff. There was a woodcut of Schiller's skull, in the "Phrenological Journal," some short time back. I saw the cast of this, at Weima, in Goethe's collection, and my recollections do not agree with this representation. Danneker's bust is obviously in a great measure ideal. Madame de Stael:—engraving after Gerard; bust in the Weimar Library. Mrs. Elizabeth Hamilton, author of "Cottagers of Glenburnie:—engraving after Raeburn, in Cadell and Davies's series, above named. George Sand:—the engraving by Calamatta; the small bust after David. Rousseau:—portrait by Aliix, after Garneray; bust after Houdon. Godwin:—cast in my possession. Moore:—mask, bust in Mr. De Ville's collection.

The following NOTE belongs to Sect. 26, but was too late for insertion. It forms the sequel to the sentence beginning "That last mentioned," and ending, "unassailed."

NOTE.—I shall make a few extracts from this Review, in illustration of these errors, not so much of phrenology, as of Mr. Combe, and the school of which he is the leader. The ability and success with which they have been exposed by the Reviewer, can admit of no question.

Extracts from Mr. Combe, with the Reviewer's comments:

"*Phrenology* shows, that moral and religious sentiments, enlightened by intellect, have been intended to guide the inferior faculties of men."—p. 428, *Moral Philosophy.*

"According to *our* view, the Creator has formed the world on the principle of the predominance of the higher sentiment."—p. 438.

"These facts prove the accuracy of the *phrenological* doctrines, that the higher faculties are made to govern the lower."—*Elements of Phrenology*, p. 135.

"*Phrenology confirms this opinion by unfolding to us* (!!) *the great fact, that we possess moral and intellectual faculties invested with authority* to rule over and direct the animal propensities," etc.—(See the whole passage in the *American Notes*, vol. 3, p. 413.)

"The *supremacy of the moral faculties*, just means that men should keep their appetites and passions in subjection to reason and conscience. A good sentiment, truly!—but we rather think, that we had heard something like it before the commencement of our acquaintance with phrenology. To act under the dominion of 'enlightened intellect,' is, to choose what will benefit rather than what will hurt us—to do what it is our purpose to do, and not the contrary—to take the right way of doing it, and not the wrong. It means, for instance, that one who is in a hurry to go from Edinburgh to London, should not

travel *via* Lewick or Hamburgh—that a man should not take his hat and walking stick to bed—that he should not apply to his solicitor to mend his boots, or call in the constable when his wife falls in labour; it means, in short, that a man *should act rationally, and not like a fool or a madman!*—a sensible enough maxim, we admit—but we thought it had been somewhat older than phrenology. That the world is constituted on the principle of the supremacy of the moral sentiments, means, that mankind are generally found to thrive better under the prevalence of justice, humanity, truth, temperance, prudence,—than where robbery, murder, falsehood and profligacy, are common. The precise time when this recondite truth was brought to light, we shall not take upon us to specify; but we had unwittingly nourished the impression, that it was rather before the days of Dr. Gall"

Mr. Combe thus exhibits the consequences which followed from men's not knowing sooner, that the moral sentiments and intellect were intended to govern the inferior powers.

"The national debt of Britain has been contracted chiefly in war, originating in commercial jealousy and thirst for conquest; in short, under the suggestions of combativeness, destructiveness, acquisitiveness, and self esteem. , ... Would a statesman, who believed in the doctrines maintained in this work, have recommended these wars as essential to national prosperity? If the twentieth part of the sum had been spent in effecting objects recognized by the moral sentiments—in instituting, for example, seminaries of education and penitentiaries, and in making roads, canals, and public granaries—how different would have been the present condition of the country."—*Const of Man*, ch. v., sec. 3,

"All those calamities happened, because Mr. Pitt and Buonaparte were not acquainted with 'phrenology and the natural laws.' They acted, it appears, in pure ignorance of the supremacy of the moral and intellectual faculties. Buonaparte, in particular, did not believe in the existence of justice as an innate sentiment, (*Const of Man—Conclusion.*) Of course, it was never pretended, that these wars were *just* or *necessary*. On the contrary, nobody would have cared to deny, that they were *unjust* and *useless*. But what then? Nobody *knew* then, that this was any reason against engaging in them. People did not know the number or nature of their faculties, their uses and abuses; and so, groping in the dark, just took up whatever faculty came first within their reach, and as ill luck would have it, acquisitiveness, destructiveness, and combativeness, seem always to have lain quite ready at hand."—p. 401, 403.

Mr. Combe has had the conviction of the identity of "phrenology and the natural laws," fortified by instances, such as the following :—

"A friend, who is the father of several intelligent children, told me, that, before he studied 'phrenology and the natural laws,' he taught his children the Shorter Catechism, and required their obedience on the strength of the fifth commandment: 'Honour thy father and thy mother, that thy days may be long in the land, which the Lord thy God giveth thee.' God, he said, had power of life and death over all, and as he was just, he would enforce his authority. The children soon learned, however, by experience, that this consequence did not actually follow—they disobeyed and were threatened—but finding themselves still alive, they disobeyed again. He was not successful therefore by this method in enforcing obedience. After becoming acquainted with the natural laws, he still taught them the commandment, but he gave a different explanation of it. He said, 'that this commentary, enforced from day to day, by proofs of his knowing more than the children did, was successful.'"—*Mor. Phil.*, p. 160, 161.

Behold a man after Mr. Combe's own heart! Here was one of just the right *calibre* for a phrenologist! Here was a person quite prepared, we dare be sworn, to vote 'the old philosophy' mere foolishness; and Locke and Malebranche, and Berkeley and Cudworth, and Butler and Hume, and Stewart and Brown, mere drivellers. It strikes us, however, that in the account, there must be a *misprint* of a word. In order to make a case in point, would it not be necessary to say, that the above children had made the discovery 'by phrenology.' instead of by 'experience?' since otherwise, people might say, why, if they made the discovery without phrenology, might not their intelligent progenitor have done so also?"—p. 405, 406.

"In the explanation of particular phenomenas and the determination of practical questions. the main improvement introduced by the 'new philosophy,' consists in this: whatever, under the old method, would have been ascribed to the *strength* of any faculty or disposition, is now much more satisfactorily explained by the *largeness* of an organ. So to say that a man's acquisitivess is large, clears up many difficulties which we should in vain seek to remove, by saying that his avarice is great. Thus we are told, that, 'to secure and maintain national independence, the first requisite in the people, appears to be adequate size of brain.'—*Mor. Phil.*, p. 342 , . . , Allowing size of brain to be the indication, or even the cause of the quality that prompts to the maintenance of national independence, it is not the quality itself."—p. 409.

It is not a little diverting to mark how eagerly Mr. Combe is always on the watch for opportunities of turning his phrenology to account: wherever its *terms* can by any possibility be introduced, it seems to him to *tell* so much in favour of its uses. Would he inform us, for instance, that means might be taken to preserve a workman from falling from the roof of a house, it must be in these terms, 'causality and constructiveness could invent and provide means,' etc., the moral intended to be conveyed being obviously this,—that it is for want of knowing about causality and constructiveness, *i. e.*, for want of phrenology, that workmen are exposed to falls from roofs. So we are always told, *intellect* does this—*conscientiousness* does that; as if instead of saying that a man sits down and takes his dinner, we should say, his legs walk to his chair; his hands carve the mutton, and his mouth eats it."—p, 410, 411.

No system of ethics can be truly *founded* on psychology; but yet every system must be materially modified by our conceptions as to man's moral and intellectual nature, and the study of this forms a most important branch even in this the science of duty, and still more, the best means of acting up to it. But as yet *phrenology*, or the system of Spurzheim—for in this sense with reference purely to the *inward man*, it is the science of the man whose name it bears, as in reference to *organology*, it belongs emphatically to Gall—has not served as the basis for any system of philosophy, using this word in that large and also appropriate sense, which defines it as the science of sciences, that which contemplates man in his relations to the universe, and of which the highest branches are the science of his duty and his happiness.

No delusion can be greater than that entertained

by Mr. Combe, that he has founded a philosophy of phrenology. His so boasted doctrine of the natural laws is identical with that of Volney, and all he has done, is to graft this more or less crudely on his views as to the number, nature, and objects of the faculties. His theory of morality is essentially that which has been termed the selfish or utilitarian system, although he seems to have in a manner concealed the fact even to himself. He speaks of the necessity of obeying the higher faculties of benevolence, veneration, and conscientiousness; but the motives to which he appeals, are always those of the injury which from the constitution of the world will accrue to ourselves if we do not act in accordance with the dictates of these faculties, and that exemplified in the most palpable forms, as in the loss of friends, or of property, or as in the case of nations, by the accumulation of public burdens. Self interest is, in fact, as much the basis of Mr. Combe's as of Bentham's system, save that Mr. Combe wants clearness of conception in the fundamental idea. Throughout Mr. Combe's writings, we find a warm spirit of philanthropy, considerable comprehensiveness of doctrine, an eager desire to instruct, great clearness and facility of *exposition*, and an abundance of the soundest practical remarks; but, perhaps, no writings making any pretension to the philosophical character, have ever been more deficient in subtlety and depth. When Mr. Combe attempts to criticise moral philosophers of what may be generally termed metaphysical schools (in contra-distinction merely to phrenology), the errors into which he falls from these deficiencies, and from his unbounded confidence in himself and his opinions, are sometimes most ludicrous.

H. Lowe.

INSTINCT AND UNDERSTANDING.

Have they particular Organs?

Dr. Gall.

I have proved in the section on innate dispositions, and when treating of the fundamental qualities and faculties, that man neither invents nor creates his propensities and faculties. I know not to what degree of ignorance, are to be attributed the dogmas of that arrogant philosophy which pretends that man is beyond the reach of those laws which govern the animal kingdom. When man burns with physical love and seeks a companion; when he loves his children and takes care of them; when he defends himself and family against his enemies; when he is proud, vain, benevolent, cruel, avaricious, cunning, and circumspect, who does not know that this takes place without his participation or resolutions? Who does not perceive, that all these sentiments, are movements and dispositions independent of reflection?

They are not the result of attention, of deliberate thought, of premeditation, of volition. They are genuine instincts. The intellectual faculties also are, in most cases, exercised instinctively. Whenever the organs of these faculties have acquired considerable development, or have been excited by some kind of stimulus, they act involuntarily, without reflection or judgment. The child cuts out figures and builds, makes music, or poetry, seeks, in cats and mice, for the causes of the vital phenomena, &c., and all this too, from a blind internal impulse. So far are such individuals from being conscious of their faculties, that when their attention is called to them subsequently, they are astonished to find such extraordinary qualities or faculties. This instinctive action continues, in most men, more or less exclusively, for their whole life; but few persons ever obtain a clear knowledge of their propensities and faculties. The more violent the action of the organ is, the more imperious is the passion; the more brilliant the genius, the more instinctive the activity of the organ, at least in the early periods of its manifestation. My admiration was deeply excited by the following lines of Voltaire, who has achieved so much himself, by the force of instinct. addressed to Diderot, under date of 20th April, 1773.

"All the philosophers together could not have written the *Armide* of Quinault, nor *les Animaux malades de la peste* of la Fontaine, who was unconscious of what he had done. It must be granted that, in the performances of genius, all is the work of instinct. Corneille conceived and wrote the scene between Horace and Cornelius as a bird builds its nest, with this exception, that a bird always does its work well, which is not the case with us."

It is only, when man turns his attention to his innate internal powers, compares them with the powers of others, learns their use and how to employ them under change of circumstances, and reflects upon himself, that his instincts gradually acquire the character of intellect or understanding. To be endowed with intellect, or possess intelligence, is, in other words, to have a clear knowledge of one's propensities and faculties,—to feel and exercise them with attention. There are, therefore, as many different kinds of intellect, as there are distinct qualities and faculties.

One individual may have considerable intellect, relative to one fundamental power, but a very narrow one in reference to every other. Man, by reason of more and nobler organs, is much more capable than the brute, of acquiring a clear knowledge of his propensities and faculties; and, in consequence of this prerogative, he is endowed with intellect, not exclusively, but in a higher degree than any other animal. To concede to the brutes, what God has given them, is surely not to degrade our own species.

From what has been said, we draw the conclusion, that an organ of intellect or understanding, is as entirely inadmissible, as an organ of instinct.

OF REASON, WILL, AND FREE-WILL.

Have they particular organs?

Reason is to the intellect or understanding, what the will is to the propensities. Let me explain. In the section on innate dispositions, I have explained the difference between propensities, will, and liberty. Desire, propensity, and passion are different degrees of the activity of each fundamental power. Oftentimes man is incapable of controlling the violent action of some one of his organs; in which case, the desire,

propensity, and passion that results, are involuntary; and thus arise temptations, which are the first conditions of vice and virtue, because, while we only *desire*, we deserve neither punishment, nor reward. Most often, the brutes have only desires without will, and the same is the case with man, in a state of idiocy or insanity, or when the organs are unusually active. It is only when the will is exercised, that our actions becomes morally free, and subject to merit or blame.

It is not the impulse that results from the activity of a single organ, or, as authors term it, the feeling of a desire, that constitutes the will. That man might not be confined to desiring merely, but might will also, the concurrent action of many of the higher intellectual faculties is required; motives must be weighed, compared, and judged. The decision resulting from this operation is called the *will*. There are as many kinds of desires, propensities and passions, as there are fundamental powers. There is but one will. The desires, propensities, and passions, are the result of the action of isolated fundamental powers. The will is the result of the simultaneous action of the higher intellectual powers, and supposes attention, reflection, comparison, and judgment. The will is often in direct opposition to the desires, propensities and passions. Cæteris paribus, the desires and passions will prevail in a rough, uncultivated man; the will will triumph in a refined and educated man. The brute, the violently excited man, the idiot, and the maniac, have ardent desires and passions, but hardly any will. The actions of those who are solely guided by the desires and passions, are easy to foresee, and calculate, however little we may know of their organization. The decisions of the will, however, cannot be foreseen with much certainty, but by means of a profound examination of the nature of all the motives, which are furnished in part by the organization, and in part by the external world; by circumstances of covenience, morality. religion, legislation, social order, and the good of society. These remarks are sufficient to establish the difference between the desires, propensities, passions, and the will, or liberty; and to convince the reader, that there can exist no particular organ of the will, or free-will.

As little ground is there for the existence of a particular organ of the will, or of free-will. Every fundamental faculty accompanied by a clear notion of its existence and by reflection, is intellect, or intelligence. Each individual intelligence, therefore, has its proper organ; but reason supposes the concerted action of the higher faculties It is the judgment pronounced by the higher intellectual faculties. A single one of these, however, could not constitute reason, which is the complement, the result of the simultaneous action of all the intellectual faculties. It is *reason* that distinguishes man from the brute; intellect, they have often in common, to a certain degree. There are many intelligent men, but few reasoning ones.

To be Continued.

A correspondent, F. K.. sends us an account of a mesmeric experiment performed by him, which led to a rather strange result. He had made the arm of the subject (a young man) rigid, and kept it pointing in a certain direction, the head being, also, turned to the same quarter. Another young man in the room, who happened to be exactly opposite the subject, was struck with a species of horror at his look, and presently afterwards fell down in a fit. After a little while he partially recovered, left the room, and again relapsed—continuing insensible for some time. It was finally discovered that the fit passed off completely, at the exact moment at which the person mesmerised was awakened, though the parties were in different parts of the house. This young man had never had fits previously, though he had fainted on different occasions. He expressed his sensations to be, "as though a thousand furies were taking possession of his brain." This is all that is new or material in our correspondent's account; he will, therefore, we trust, excuse us for not publishing it entire. Our Journal "*is* open as a register of facts in mesmerism" when those facts have a directly phrenological bearing, and are likely by their novelty or value to interest our readers. We cannot, of course, register such experiments indiscriminately, however interesting in themselves. Our limits will compel us to use discretion.

TO CORRESPONDENTS.

F. W. C. The only parties we know of in London, who practice manipulation professionally, are Mr. Deville, in the Strand, Mr. Rumball, and Mr. Donovan in King William Street. We do not exactly know their terms, but we believe those of the latter gentlemen do not exceed half-a-guinea.

Mr. Sumner Merryweather.—This gentlemen's communication will appear in our next.

Mr, R. Jones,—We shall notice Mr. Jones's letter in our next.

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A COMPLETE SYSTEM OF PHRENOLOGY.

(*Continued.*)

Many have recorded facts, tending to prove that, among animals, it is always the most able and sagacious that is selected as the leader. Man, with all his vaunted greatness, might learn, from the often despised brutes, wisdom on this point at least. The same phenomena may be observed among birds. The veneration of the dog for his master is unquestionable. The elephant and the horse, in the domestic state, plainly shew, in their acts, not only fear, but also deference to man: and further, they perceive the different ranks among men—they pay less respect to domestics than to their master and his family, and still less to persons who are visitors: they have none for strangers. All natural histories abound in facts corroborating these views. All the feelings are elevated in man, and assume more decided and distinct features; but although it has never been acknowledged that it is the same principle which induces acts in animals and men, for our own parts, seeing the connection between mentation and organization, we do no hesitate to aver that there exists a chain in creation from the lowest to the highest being, and that those animals, whose organization approaches that of man, are united by links, that a naturalist, who loves truth, will not attempt to destroy.

BENEVOLENCE.

Dr. Gall discovered this organ. When he was engaged in making observations, one of his friends told him he ought to examine the head of a servant, he had, named Joseph,—"For," said he, "it is impossible to find a greater degree of goodness than that young man possesses. For ten years that he has been in my service, I have seen him manifest, on all occasions, only benevolence, and gentleness of disposition. This is the more surprising, as he does not possess the advantages of education, and has been brought up among men of very inferior habits." Dr. Gall remarks that, previous to this time, he had no idea that what is generally called goodness of heart could have any organ in the brain, and, therefore, had never looked for any indications of it in the head. His friend's solicitations awakened his curiosity,—and calling to his mind several of his companions and friends, who had been noticed for their good dispositions, he formed the idea that what was called goodness of heart was an innate disposition. Dr. Gall took casts of the head of the servant Joseph, and of two other individuals, noted for similar kindness of character,—placed them by the side of each other,—and, he says, continued to examine them, until he found a development similar in the three, in one portion of the head, although the formation, in other respects, was very dissimilar. Dr. Gall says, "I extended my investigations to animals also, and in a short time collected so great a number of facts, that there is no fundamental quality, or faculty, whose existence is better established than that of benevolence, and the organ with which it is connected."

SITUATION.—This organ is situated at the upper or superior portion of the frontal bone, immediately in front of the fontanelle. The root of the hair is a general indication of the commencement of this organ,—but when relatively larger than comparison, it appears more backward,—but is always in front of the juncture of the bones, on the top of the head. When well developed, it gives a height, and noble look to the front of the head, above comparison. When small, the head appears to slope upwards from the intellectual region to the back, and the whole head appears mean and sinister.

PRIMITIVE FUNCTION.—A desire for the hap-

piness or good of others,—universal charity,—mildness of disposition,—kindness and love.

Auxiliary Faculties.—This faculty is aided in its action by all the affective faculties—more particularly, adhesiveness; in fact, there is much care requisite to distinguish between the kindness which may be felt for objects under the influence of an active philoprogenitiveness, adhesiveness, &c., and the higher, more extended, and refined enjoyment of the feelings of pure benevolence. It is aided, likewise, by all the reasoning faculties,—which shew to us, that "mercy is twice blessed." Ideality, imitation, wonder, and hope, easily combine with, and increase the power of the feeling. Conscientiousness and veneration combine, especially, with benevolence, and, together, constitute the moral sentiments,—in accordance with the supremacy of which, the whole world is constituted, and the acknowledgement of which, practically, must lead to universal happiness and enjoyment.

Antagonist Faculties.—The whole of the organs situated in the lateral regions of the brain are, in their isolated action, opposed to the dictates of benevolence—they seeking merely selfish gratification,—but they impart energy, even to the commands of benevolence, when acting under its controul. Thus, in point of fact, when well regulated, all the powers of the mind are capable of aiding each other,—but as they are generally manifested, we find the law of love violated continually, under the influence of all the irascible feelings—combativeness, destructiveness, secretiveness, acquisitiveness, &c. Alimentiveness, when highly excited, opposes this faculty.

Manifestations.—The direct results of this feeling may be observed in all acts of kindness. It is not merely in bestowing alms, or giving money, that we must look for its activity. Many give money to save themselves trouble, who want benevolence to perform real acts of love and kindness. It is shewn in connection with love of approbation, in the many establishments, existing in civilized countries, for educating the poor, for receiving the sick and aged, &c. A more enlightened benevolence would go still farther, and establish such social laws, as would enable all to educate their own children, and tend their own sick relatives. It is much that they are taken care of,—but every human being has a right to be in such a position, that, by moderate industry, he may secure the means of protecting and educating his own family, without being compelled to seek, or accept, as charity, what is justly his right. This feeling is very generally developed,—there is much more kindness and benevolence in the world than justice.

The existence of the feeling of love for others, independent of selfish gratification, has been doubted by a school of philosophers, which might very justly be denominated, the selfish school. Dr. Thomas Brown has so beautifully replied to this, that we shall make an extract from his works upon this subject. He says, "The analysis of love, as a complex feeling, presents to us always, at least, two elements—a vivid delight in the contemplation of the object, and a desire for the good of the object. Though we cannot, when there is no interfering passion, think of the virtues of others without pleasure, and must, therefore, in loving virtue, love what is, by its own nature, pleasing, the love of the virtue, which cannot exist without the pleasure, is surely an affection very different from the love of the mere pleasure existing, if it had been possible for it to exist, without the virtue,—a pleasure which accompanies the virtue, only as a soft or brilliant colouring of nature flows from the great orb above,—a gentle radiance that is delightful to our eyes and to our hearts, but which leads our eyes upwards to the splendid source from which it flows, and our hearts still higher to that Being by whom the sun was made."

The acts flowing from this source, may be easily distinguished, by their warmth and genuineness, from similar acts, when proceeding from interested motives—even acts of duty. The almost forced cares of many nurses are readily distinguished by the sick, from the readiness with which they are waited on under the influence of this feeling. A general happiness and contentedness of disposition results from this faculty. The bright side of the way, or, rather, not entrenching upon the region of hope, dark shadows are lightened, and smiling hilarity made to extend a cheerful aspect to all within the extent of its influence. When acting blindly without the guide of reason, this feeling may lead to profusion, hurtful giving of money, without regard to the wants or characters of the individuals,—excess of hospitality,—friends are literally forced to injure themselves by eating and drinking to excess, to please their host's benevolence.

Children who have this organ large are very generous, and will give away their playthings or sweetmeats. When deficient in childhood, it may easily be excited by example; but it is an error to suppose it possible to bring a feeling into a high state of activity, so as to compensate for an inferiority in size, by precept, writing, or repeating good lessons; these can only exercise certain intellectual faculties, but will no more make a child benevolent, than reading it lessons upon music would make it a musician. The manifestations of this feeling, combined with large destructiveness and high temperament, are most amusing. An individual will fluctuate between the two feelings, unless he knows their source in his organization, in a way often ridiculous in itself. They will hurt their best friend one moment, and caress them the next; they are what are called good-hearted, but hot-headed people. We have known masters and mistresses with this infirmity of temper, whose servants would make a profit of it by throwing themselves in their way, to get even a blow under their excited destructiveness, well knowing that they would be recompensed, as soon as kindness had returned, by a present in money, or a left-off dress, valuable inproportion as the violence had been more or less manifested.

(*To be continued.*)

On the Influence of "Education and Circumstances" in modifying Character and Organization. *Continued from page 5.*

(By the Editor.)

We shall commence our enquiry with the faculty and apparatus of vision. In what consists the difference between a greater or less power of vision? It lies, we conceive, in three things: in clearness, in the distance to which it reaches, in its power of sustained attention, and perhaps also in its capacity for enduring increase of light. Unless exercise can increase, one or all of these attributes, we cannot see upon what principle it can be said to increase the power of vision. We know nothing of differences of activity in this case. There may be differences in the activity of the action of the eyelids, but when these are raised, and light is presented, the mental excitement is so inconceivably rapid, that no difference can be noticed between one man and another in regard to quickness of perception. Let us see, then, what facts say upon this matter. There are many animals that are able to use their eyes the instant they are born. We have a familiar example of this in our domestic fowls. The instant the chicken breaks from its shell, it runs about, picks up grains of corn, &c., giving every evidence of complete accuracy of vision, if not of the utmost amount of it peculiar to its kind. Let us grant that its field of vision is, at this time, less extensive than that of the parent bird, and that it cannot bear the same intensity of light, nor endure, so long, a fixed gaze, will any one maintain that after a few months' time there is any difference between them, in any of these respects? But let us admit that there is some slight difference, we have but to add a few months more to the age of the bird, and it has reached its full development, and is capable of exercising, as well as ever it will be, all the functions for which nature intended it. Well, from that period to its death, the visual apparatus is in perpetual exercise during the whole of its waking hours; why then is there not a constant increase in its size, a constant improvement in its power, up to the period at which old age begins its ravages? Why is there no evidence of any increase whatever, either way? If increase in organic development, and mental power be *necessary* consequences of exercise, there ought to be increase, and great increase, in these respects. Shall we be told that it is not ordinary exercise, but great and unusual exercise that produces such increase? This, at all events, is an abandonment of the principle, that there is something in the very nature of exercise, to cause increase of development and power; but the objection will not serve to any extent. Observe the actions of the creature we have spoken of, mark the eager intensity of its look while searching for its food. If that be not as vivid an exercise of vision, as is consistent with healthy action, we know not what is. There is, to be sure, another mode of exercising sight more powerful, and perhaps, therefore, more vivid than this, viz: to gaze steadily and continuously at one object. But who ever noticed any improvement resulting from such exercise? On the contrary, deterioration is its inevitable consequence. The only kind of exercise that, consistently with experience, can be imagined at all likely to improve sight, is that which may be expressed in the words, vivid attention and change of objects. Precisely the kind of exercise, of which our domestic fowls furnish us daily with such brilliant illustrations.

But, after all, in judging from the inferior animals, appearances may somewhat deceive us. The nicety required in the present argument, may perhaps be better obtained by taking illustration from our own species. Man, it is evident, is far less completely developed at birth, than the class of animals we have spoken of. Among his unfinished organs the optic apparatus must be included. But it is equally certain that he soon arrives at his highest powers of vision. If you object to two or three years of age, as the period at which development in this respect, ceases, let it be seven, or ten, or fourteen, or twenty years. Who ever heard of any one, whose sight was not by nature disproportionately weak, having his vision increased in clearness, extent, or strength, after these periods? And yet, which of the mental organs, is, or can be more constantly and vividly exercised than the eye? How then does it happen that fifty or eighty years of constant exercise fails to improve this organ one iota? We continually hear of persons who exercise this organ with more than usual intensity. What is our prediction in reference to them? Do we anticipate an increase of power? Far from it, we expect nothing but a weakening, or even total loss of sight, from any such exercise. We cannot, without more or less risk, carry it beyond the usual degree. In fact, they who exercise their sight least, to speak in ordinary language, have the best chance of *preserving* it longest; nobody talks of increasing it.

These few remarks are, surely, a summary of of the common experience of mankind on this point. They announce the results arrived at, from myriads of facts. We see not how the inferences they furnish are to be evaded, but our task is yet incomplete; there is a class of facts yet to be considered, which may, at first sight, appear to lead to an opposite conclusion, and is usually supposed to do so. We are told of the great superiority of the savage over the civilized man in respect to power and acuteness of vision,—of the improvement of vision which sailors obtain from their occupation,—of the degree to which the blind improve the senses of touch, hearing, &c. Let us examine these cases. The American Indian, for instance, sees the track of his enemy on the grass, where the citizen of Europe sees nothing; he observes a thousand minute peculiarities in surrounding objects, both remote and near, which entirely escape the notice of the other. Very well. These are facts,—all else that we attribute to him, are but our own inferences from these facts. Perhaps, then, the American Indian has better vision than the civilized European;

all animals are not equally gifted in this respect. We find amongst ourselves various gradations in this power, as well as in the size and prominence of its organ. Why may it not be the same with uncivilized races? There are many of them of whose good sight we do not remember to have heard anything. There are many who certainly have small and sunken eyes. The hunter requires an eagle eye—large, prominent, clear, and far-seeing,—and nature gives it to him. Perhaps that is the whole affair. Oh no, it will be said, it is the constant exercise he gives it. If so, one of two results will follow; either the improvement made is transmissible to offspring, like other inheritable qualities, or it affects the individual only. If it be transmissible, it says little for the effects of exercise, since, after some three or four thousand years of vigorous exertion, the sight of these savages is not so very much better than that of most civilized men, making all allowances for the exaggeration of theorists. The improvement in any one generation must have been so small, as to be utterly inappreciable by our senses. Many of these races are to a very considerable extent pure. There is every reason to suppose that for ages upon ages their intermarriages have been essentially confined to their own, or analagous tribes, and that the mixture of different blood must have been so rare as to affect only a few generations of individuals, there being, from its rarity, a constant tendency to its obliteration. Nothing could be more favourable for shewing the improvement resulting from vivid exercise continued from age to age, than their simple and unchanging mode of existence: provided, of course, there was any thing to shew. At best there does not seem to be much; we shall presently inquire if there be any.

If, on the other hand, the improvement commences and ends with each generation, then it should bear a very direct proportion to the age of the individual. Now we never heard that the young warrior of twenty, or twenty-five had worse sight than the veteran of fifty, or sixty. Were such the case, the remark would have been made by some traveller or other. The tribes would themselves notice it, and it would be so different from anything that takes place in civilized life, that the traveller could not forget it, if his attention were once directed to it, even by a casual, or indirect allusion. But, in fact, if such an improvement took place in the wilds of America, something analagous could not fail of being observed in the streets of London. The laws of nature are every where the same.

But we deny altogether the great superiority attributed to the savage in respect to powers of vision. There may be some, but there is not sufficient evidence of any great superiority. His sight may be, and, indeed, is better than that of vast numbers of individuals, and perhaps whole classes in civilized life, but it is very questionable if it be in any respect superior to that of other individuals and classes. We have hunters and warriors in civilized life. The eagle eye, with all its attributes and concomitants, flashes in our streets, as well as in transatlantic woods. And yet we are not aware, that such eyes are more exercised than those of any other class of citizens. But, to come more nearly to the point. The painter and connoisseur see a thousand things in a picture which an uneducated eye passes without notice, and can hardly be made to see even when pointed out. But who will be so rash as to say, that it is because their sight is peculiarly clear and strong? Why, perhaps they are obliged to use spectacles even. Now place the Indian before one of the pictures of a great master. Of what use is his superior sight in perceiving its more delicate peculiarities? The veriest Cockney, whose ancestors may have lived in London since the days of Julius Cæsar, would see more in this picture than the man whose powers of vision are so much talked of. Or again:—Let the painter and the savage walk, with an old and experienced physician, through the wards of an hospital, what do they know of the thousand minute peculiarities of look, manner, and complexion, that instantly arrest his attention? Hardly anything. Some of them escape their utmost scrutiny. The physician himself may be wholly unable to describe them, even when they powerfully sway his judgment. Who, in fact, does not know, that the feeble sight of an old man may be worth more, at the side of a sick bed, than the eager looks and brilliant eyes of his score of pupils? The matter surely is very simple; the whole is an affair, not of mere sight, but of attention, memory, and reasoning. The hunter is deeply interested in noticing the traces of the animal he follows, or the foe he seeks, or avoids. This continued interest enables him gradually to bring within the sphere of special attention, every peculiarity, of any consequence in them, and these once attended to, once reasoned about, begin to assume their places in his memory, and become, by practice, more and more readily noticed, until at last their perception is instantaneous. But all these appearances were impressed upon the eye, and upon the mind, the first time the objects were beheld, as well as the last. This is an inevitable consequence of the laws of optics, and cerebral organization. The only difference is that, in one case, they were *attended* to, in the other not. In fact, we find that Europeans, who spend some time among the Indians, and follow, with spirit, their pursuits, soon become nearly, or quite as expert as themselves, in all these observances.

It is thus with the sailor. Every little appearance at the verge of the horizon is of interest to him. By attention, comparison, reasoning, and memory, he soon learns to notice the minutest shades of resemblance and difference between a certain class of objects. So that what is to one man a spec of cloud, or a bank of vapour, is to him a sail, a line of coast, or a range of mountains. But his sight may neither be clearer, nor longer than that of the generality of persons who have preserved unimpaired what nature had bestowed upon them.

The case of the painter differs not in the least. A young artist, for example, has finished his

studies in his own country, and has proceeded to Italy to perfect himself, by the contemplation of the works of the great masters. He places himself before one of their pictures, and perhaps the first impression is one of disappointment. By degrees, however, the beauties of the work, begin successively to attract his notice, and he leaves it better pleased than, after the first view he expected to be. He returns the next day, and new excellencies develope themselves; the same thing is repeated again, and again; and it is only after many days, or, perhaps, weeks, that his discoveries cease. No one surely will deem this the result of improved vision. No one can possibly imagine that the eye has undergone any change in this short time, or that the picture makes a different impression on it at the end, from what it did at the beginning. The whole is obviously an affair of attention, comparison, and reasoning. Is there then a particle of essential difference, as far as this argument is concerned, between the connoisseurship of the painter, and that of the Indian hunter? Surely not. The one studies a picture produced by the pencil of art, the other, one produced by the hand of nature. No one thinks of attributing the skill of the one to any peculiarities of eyesight. Is it less unreasonable to do so in the other case?

The case of the experienced physician is exactly parallel, and the same may be said of a hundred other instances in which a practised eye detects peculiarities, which altogether escape the notice of one that is untrained. In the vast majority of these cases, no one dreams of attributing the power to any superiority in mere sight, because we are familiar with parties possessing this power, and who evidently display no such superiority. But having little knowledge of uncivilized life, travellers have been predisposed to look at every thing unusual through the medium of their marvellousness, and thus two different explanations have been given to phenomena precisely analogous. Whether or not much practice, in any of the ways alluded to, be calculated to improve the organs on which the acquired superiority really depends—those, namely, of the internal faculties we will not at present stop to enquire; but we cannot see the least evidence of its causing the most trifling improvement in the powers of simple vision. On the contrary, when we look carefully at the facts presented to us, so abundantly, by ordinary experience, in reference to this subject, we shall find them all opposed to the supposition that any amount of exercise is calculated to *improve* the natural powers of vision which nature has assigned to her different creatures. We find these attaining their full development at very different rates, in different animals, but they are always amongst the powers soonest developed. In some animals they appear to be fully developed very shortly after birth, if not, indeed, at birth. And though they are liable to be *weakened* by a variety of circumstances, we know of nothing that can *increase* them. If the sight, from any cause, be preternaturally weak, care, and the resources of medical skill may improve it, but only up to a point to which it would naturally have attained had there been no disease, or constitutional weakness. Man has the power of deteriorating, and in some cases that of curing, but he has not the power of improving, this sense, at least, one degree beyond its natural healthy state. All that nature requires of him here, is not to interfere with her. She brings, in her own time, without the least aid from him, this wonderful power to that degree of perfection which best suits his condition, and all that she requires of him, for its preservation, is that he shall not use it too much. She places him in circumstances in which he cannot avoid using it sufficiently. The wildest theoriser cannot surely doubt that there is a limit to the improvement of sight. The power becomes stationary long before maturity, if not even in infancy. Exercise, then, does not *of necessity* tend to improve organic development. Whether it does so in particular cases, is another matter, but it is clear that the affirmative cannot be maintained, as a universal proposition. In the next place, as nature brings one organ to perfection without human aid, there is no absurdity in supposing that she can do the same with others, or with all; nor is there any *a priori* absurdity in the supposition that she actually does do so. We mention this, however, to shew the natural bearing of this argument; we have no intention of availing ourselves of any generalization of this kind, however legitimate; we shall investigate each faculty separately, as far as it presents any peculiarities, so that we may have every chance of arriving at an accurate conclusion upon the whole question. We also forbear, for the present, from any inquiry into the exact nature of the improvement made in the cases cited in illustration; viz. those of the painter, physician, sailor, hunter, and such like, or as to the mental powers really concerned in them; this subject will be more appropriately discussed when we come to treat of the internal faculties. It is sufficient for our present purpose to have shewn that the acquired power does not result from any improvement in vision itself. One word more, before we proceed to our next topic. Some of our readers, no doubt, have a host of objections to make to our general opinion on this matter, and some, possibly, are actually angry with us for the conclusion we have arrived at. The former we must beg to have a little patience with us—we shall endeavour to answer all their objections by and by. If they have discovered any flaw in our immediate reasoning, or any fact to oppose to it, by all means, let the present theory have the full benefit of them. If not, let them admit the force of our objection to it, as far as the sense of sight is concerned, and retain what opinion they please in reference to other organs. This is all we ask for the present. As for the other class of readers, we really sympathise with them, and are very sorry for the annoyance we are giving them. They certainly have much right to complain, for it is most provoking that people should be disturbed in their opinions at this rate, especially when those opinions are so very agreeable, and so very useful also. At present, if one is inferior in any respect, he can, at

least, have the comfort of saying that he might be different, if he chose to take the trouble; while this theory would often require him to acknowledge in himself some natural and inevitable inferiority. This is anything but pleasant surely. Again, what an inducement to laziness and inaction is here offered; and what a powerful stimulant to moral and intellectual improvement is thrown aside, &c., &c. We do not deny the inconveniences of our opinion, but we humbly submit that the fault is not ours. If the conclusion we have arrived at be true, why, it is nature that must be blamed, not us. If it be not true, no one need give themselves the least trouble about it. It will never seriously interfere with such comfortable and wide spread doctrines. "*Truth* against the world" may possible prevail, but falsehood must be powerless indeed, when it seeks to oppose a universally recognised truth. It is just as well then, that we should go on with our enquiry. If we are wrong, the truth will shine out the clearer from our investigation, even in spite of us. If we are right, people may as well agree with us at once. There is not much good, after all, to be got by opposing nature. She is often very unreasonable, there is no doubt, but still she will have her own way; and we may, therefore, as well submit with a good grace, since submit we must. It will, on the whole, be much better for us, to try to make the most of things as they are, than to indulge in unreal fancies, however delightful, and advantageous, and *reasonable* they may be. If our readers, then, will meet us in this spirit, we promise to give them all the aid in our power in extracting every advantage that may be contained in this portion of the laws of nature. But first let us ascertain what those laws are.

(*To be Continued.*)

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We resume, acccording to promise, the consideration of Mr. Atkinson's views on the functions of the cerebellum. To place the subject more conveniently before our readers, we shall repeat one of the passages we quoted from him last week, as it contains the whole of his explanations respecting the situations and functions of his new organs. It is as follows:—

"There are four great primitive powers in the cerebellum, besides amativeness. That portion nearest the ear, being the desire of muscular action, and this seems to be divided again; a small part quite beneath the ear, possibly having relation to the action of physical destruction, and the rest to that of physical contention, opposing in action, tugging, fighting, and contending. The primitive powers, probably being the simple desire of action, and again, to contend or overcome: we obtain the single action of these, or indeed any other organ, best in those who are not very excitable, whose combinations are not so rapidly induced as in some. In fact, these would be to the more physical powers, so to speak, what destructiveness and combativeness are to the mental,—they are quite distinct. At the top of the cerebellum, half-way between the ear and the occiput, is the organ of muscular sense, a power chiefly giving a knowledge or feeling of the state of the muscles, and of their power to act. Beneath this is muscular power, giving strength and force, inducing a desire to exert it, in working, walking, lifting, &c., according as it may be directed by other powers. And in the centre we have amativeness, and a physical sense, a sense of the functional condition—the feeling of heat and cold, and pain, of health and disease, or of the general internal and physical condition of the body, without reference to the muscles. Here, then, we seem to have completed, in a most beautiful and satisfactory manner, what was deficient, and what has been the cause of so much controversy—a knowledge, the importance of which to our health and happiness we can scarcely too highly appreciate."

We shall first consider how far these explanations are consistent in themselves, in harmony with the principles of phrenology, and borne out by our general knowledge of human nature; and, secondly, how far the evidence adduced in their favour can be regarded as satisfactory.

The first of these organs is spoken of as being probably a double organ, and a contrast is instituted between the functions of its two portions, viz.:—physical destruction, and those of the old organs of combativeness and destructiveness, the former being "to the more physical powers, so to speak, what destructiveness and combativeness are to the mental." We must confess our utter inability to understand the precise distinction which Mr. Atkinson means to make between physical contention and destruction, and mental contention and destruction. The only further explanation which his paper affords upon the matter is contained in the following passage, where he says that his patients if questioned respecting the nature of their dreams, when these organs had been touched, will give such answers as the following:—"I wanted to break something, or knock some one down, only I was afraid of injuring them." "This," he adds, "is clearly distinct from destructiveness. In these cases I could not excite destructiveness or combativeness." A dream of this kind would receive a different interpretation in the old phrenology. Had Dr. Gall been questioned on such a subject, he would probably have said that the matter was excessively simple: that the very fact of there being a dream proved that several of the mental organs were awake and active:

and that the very nature of the expressions used proved that among these active organs were those of the moral feelings and of intellect; and that the individual was restrained from exercising the organ of destructiveness, in a certain way, because there would be a painful interference with his conscientious and benevolent feelings. We cannot possibly see how such expressions as the above, prove anything in favour of Mr. Atkinson's hypotheses. Whatever be the source or nature of the desire of destruction, whether its organ or organs be in the cerebellum, or in the cerebrum, or in both, whether it be physical or intellectual, or moral, this is precisely the way in which it is restrained and regulated by the moral and intellectual powers, and our other desires generally; and this, whether we be asleep or awake. But Mr. Atkinson says, that in these cases, he could not excite the old organs of combativeness and destructiveness. If this fact proves any thing, it proves that Gall was wrong in locating these organs in the cerebrum, and that their true seat is in the cerebellum, where Mr. Atkinson has placed his new organs. But, indeed, the fact proves nothing for him. In the first place, how does he know that these organs were not excited? There was a manifestation of destructiveness; how does he know that it did not proceed from the organ discovered by Gall? Again, why could he *not* excite the organs of combativeness and destructiveness in these cases? He does not know. Neither he nor anybody else can tell why certain organs are excited—certain mental manifestations produced, at one time, and not at another, in one patient, and not in another, by one operator, and not by another. The subject is all mystery. We know nothing whatever, for certain, beyond the phenomena which take place before our eyes. These phenomena admit of various explanations. No one has a right to assume that one of these is the true one, unless he can give good reasons for the assumption. Merely to *assert* that such is the case, is hardly sufficient.

Are we then to understand Mr. Atkinson as maintaining, that the old organ of destructiveness is concerned in those cases only in which *pain* is inflicted, in which there is injury done to animate beings, and that his new organ, in the cerebellum, is alone concerned where merely inanimate objects are injured, destroyed, knocked down, &c.? If he does not mean this, we know not what he can mean. If he does mean it, his opinion will lead us to some curious results. Let us see. Are there two, or more kinds of destruction so different in themselves as to require for their manifestation perfectly distinct organs? This is what we have to consider.

Physical destruction means, we presume, the destruction of something material:—a china vase, for instance, a street lamp, or anything of that sort. But what is mental destruction? Is it illustrated in the feat of building castles in the air, and then knocking them down again? Does it mean destroying in imagination, or volition merely? If so, if such destruction as this must have its special organ, we should require two sets of organs for all faculties, one to be called into action by realities, and the other by thought merely. But this cannot be Mr. Atkinson's meaning, since his patients were dreaming when they felt the desire of knocking somebody down, and he no where tells us that another organ would be required to enable them to entertain similar desires in their waking moments, or to carry out such desires into practice. What then is mental destruction, or to be more accurate, what is the destructiveness that concerns the mental powers, as contra-distinguished from "the more physical powers?" We often talk of destroying a man's peace of mind, his reputation, and so forth: is this the mental destruction intended? But all such expressions as these are merely a metaphorical use of the word destruction. How have we destroyed a man's peace of mind? We have treated him with contempt, for instance. That is, we have added something to his previous state of mind, or we have substituted a state of pain for one of pleasure, just as we might substitute a china vase for a glass one. This, then, appears to be nothing more than a metaphor, as far as the word destruction is concerned, unless indeed destruction means nothing but change, a definition to which we shall not care to object; but it is not Mr. Atkinson's definition. We are therefore still at sea, in the affair of destructiveness, as it concerns the mental powers.

Perhaps Mr. Atkinson means that every thing which is strictly physical in destruction—as breaking, injuring, changing—comes within the sphere of his new organ, while every thing which concerns the infliction of pain belongs to the organ discovered by Gall. But can we admit an organ with such a function as this?—Can we admit that man is endowed with a special propensity, a primitive instinct, whose proper gratification is the misery of others, which takes

pleasure in contemplating misery, as such? If so, then, as nature in bestowing an organ must necessarily will its frequent action, and place the creature endowed with it in circumstances that shall necessitate its frequent action, it follows, that human beings can never be properly happy—can never be in a natural state, except when surrounded by a great deal of suffering—the misery of one being an essential ingredient in the happiness of others. A pleasant state of things certainly. We ought surely to have very clear evidence laid before us before being called upon to admit the existence of such a fiendish propensity. But it will be said, men do feel pleasure in the sufferings of others, and often inflict entirely gratuitous pain. This is assertion. We see certain acts. This is the interpretation we give them. But they may, perhaps, admit of another, and a better. They must, indeed, do so, since this one leads to a host of palpable contradictions and absurdities. The following, for instance, are some amongst its many strange consequences. The excitant of this organ is the sufferings of others. But the same is also the excitant of the organ of benevolence. Two organs having thus one and the same specific excitant! This may do in phrenomesmerism, but in nothing else. Let us see. Whenever the legitimate excitant of an organ is presented to the mind, and the organ is in a healthy condition, and not over fatigued, it becomes immediately, and necessarily excited. Whenever then we behold suffering, these two organs must both become excited at one and the same time: two absolutely opposite feelings must co-exist in the mind. This is not simply a case of mixed and conflicting feelings, as when we are pained on one account, and pleased on another, when we like a person in some respects, and dislike him in others. It is one of pure neutralization,—it is loving and hating the same object, at the same time, for the same reason: it is being at the same identical moment hot and cold, dry and wet, hungry and satiated, &c. &c. All this is evidently absurd. We should have two organs, not occasionally antagonistic, but always so. We could never gratify the one, without giving pain to the other. We could never feel entire satisfaction in the exercise of benevolence. There would be always more or less of pleasure in the contemplation of misery. But it is needless to follow out the consequences of the admission of such a principle. If, however, we do not admit it, how, it may be said, shall we account for the satisfaction which is so often manifested at the view of the misery of others? Suppose we are not able to account for it, what then? This inability cannot be an argument in favour of an explanation which is evidently false. If we have a propensity to take pleasure in the sufferings of others, it will manifest itself, more or less, under a great variety of circumstances. It will naturally be less, felt in regard to those individuals with whom we in some respect sympathize, but it ought to be unequivocally felt in regard to those who are indifferent to us. In point of fact, however, nothing of the kind is felt in such circumstances. There is no evidence to prove, that even the greatest monsters have inflicted pain, or rejoiced at suffering, without some motive apart from the love of the thing. We have instincts that lead us to take a pleasure in retaliation and punishment in general, in opposition and conquest, and in destruction. Suffering is often the consequence of the gratification of these instincts, and we bear with it for the sake of that gratification: it is often the indication or language which proclaims our success, and we may even rejoice at it as the expression of our success. It is often identical with punishment, and we rejoice at it as such. But it is contrary to all our knowledge of human nature to assert, that we rejoice at it for its own sake. There is no evidence then of the existence of such an organ as we are speaking of. If not, we cannot see how we are to make out two organs of destructiveness.

We shall resume this enquiry next week. It is clear we have a task of considerable length before us, but we shall go through with it. It is of little use to be arguing by halves. It merely renders controversies interminable. We shall therefore endeavour to examine these opinions of Mr. Atkinson, in all their more important bearings, and thus afford our readers every means in our power of coming to decided conclusions on the matter. We need hardly say, that should Mr. Atkinson feel disposed to reply to our remarks, our columns are entirely at his disposal.

REVIEWS.

THE ZOIST.—No. 3. October.

The third number of this Journal, which we must apologize for not having previously noticed, is chiefly occupied by the proceedings,

firstly, of the Phrenological Association, and, secondly, of the Phrenological Society. The exceptions are a very short, and equally insignificant letter, by Mr. Arthur Trevelyan, assigning his reasons for regretting the inadvertent subscription which, it seems, he gave to the declaration of M.M. Simpson and Sampson, and a paper which, is certainly bulky enough, containing no less than forty-nine pages, devoted to cases of palsy, cured by mesmerism, personally subscribed by Dr. Elliotson. This leaves, however, nearly two thirds of the Journal occupied by the proceedings of the Association and Society. In so doing, we conceive, the editor has done phrenology a service, inasmuch, as however the efficiency of these bodies may be impaired, we will not say by the differences existing among phrenologists, but by the animosities and distrusts, which these differences are allowed to occasion, they are, undoubtedly, at present, the only collective representatives of phrenological opinion, in the United Kingdom. Those who complain that the leading party in these bodies exhibits too much of an exclusive and intolerant spirit, and, altogether, conducts itself in a spirit of clique and faction, are often themselves, in great part, to blame for the very result which they deprecate. In the Association, especially, that party could never have obtained the lead, save by the influence of negligence, mismanagement, indifference, and, worst of all, moral cowardice, in the great body of phrenologists. The Association is open to phrenologists at large, and if they abandon the field, entirely, to one class and section of their body, and thus leave unchecked influences, which they disapprove, and consider injurious to the promotion of the science, on their shoulders rests the responsibility of results, which their own indolence and want of moral courage chiefly occasion. That a disregard for moderation, an undue spirit of proselytism—at variance with that of philosophy, which seeks to convince, not to persuade, to silence, or to overwhelm—and a tendency to make assertion take the place of reason and fact, are all exhibited by the predominant party in the Association and Society, is, we conceive, unquestionable,—but these tendencies are, in some measure, characteristic of all predominant parties, especially, when these are small, and owe their power to unity of action under one head,—and those, who, by their own indifference, allow of this predominance, are chiefly to blame for its evil results. Whatever may be the case in the Society, in which the sectarianism of which we complain has been very deeply grafted by time, and by sedulous management, it is very clear that this indifference and moral cowardice are really the causes which have allowed this predominance in the Association, and should a better spirit be diffused among the body of phrenologists, the preponderance of a section is at an end.

The number commences with the proceedings of the Association, introduced by a few remarks, congratulating the public on the full attendance at the meetings, and the failure of M.M. Simpson and Sampson to destroy the Association. In these congratulations we are happy to join. We are further disposed to say something, for own part, on the declaration promulgated by these gentlemen, on which our remarks will have some novelty, since it has hitherto been criticised only by parties approving of Dr. Engledue's address, and is so now by one who equally condemns the address itself. Little need be said on the outrageous inconsistency of Mr. Simpson, who had himself *moved* the vote of thanks to Dr. Engledue, putting his name at the head of the protest. That spirit of plausibility, that eagerness to turn and veer to every momentary breath of popular favour, which seems to have actuated him on so many previous occasions, as in suppressing all reference to phrenology, while adopting its classification of faculties, in his "Essay on the Educator," and his lectures in Willis's rooms,—or in making use of that science as a knife with which to cut up a victim on the altar of theological rancour,* was also active on this occasion. Other phrenologists are to be blamed for allowing themselves to be led by a man, who, whatever his abilities, industry, or benevolence, has, in public matters, shown himself so little a *reliable* character; from himself nothing better was to be expected. He is the only party exposed to any other blame in the proceeding, than that which must necessarily attend those, who subscribe untenable or fruitless propositions, couched in a nakedly dogmatic form, which exposes all their defects,—and who, to show their antipathy to certain opinions, blunderingly fling away all the power they possess of barring their promulgation.

It would be unjustifiable were we to censure this declaration, without some specification of the points we disapprove. Let us take the second paragraph, which strikes us as one of the feeblest and worst. "When Dr. Engledue,"

* In his article on the character of Voltaire, in the 3rd volume of the Phrenological Journal for 1824, since republished in Selections, from the Phren. Journal. The materials he employs are characteristic. Voltaire's history is almost that of European literature in the 18th century, and materials for it were everywhere at hand. Mr. Simpson selects as his authorities, the article in Dr, Aikin's general biography, and an article on Madame de Grafigny's correspondence in the Quarterly Review, a publication so conspicuous, especially under its then editor, Gifford, for charity to the heterodox. How should Voltaire fare, when poor Miss Edgeworth could not escape, what Lord Dudley (a then *contributor* to that journal) calls canting, hypocritical accusations against her on the score of religion. (Letters to the Bishop of Llandaff, p. 14. "The passages," he says, "were of Gifford's own manufacture, and invented (per salute animæ) at his particular instance, in an article furnished by that 'serious young man,' the younger Stephen." The gentleman in question has since made his services heavily felt by his country.

says the declaration, "asserts that we can discover in the brain's structure the actual origin or evolution of thought or feeling, it appears to us, that he has only *described* the molecular structure of the brain, as seen by the microscope. Mr. Combe's American case, which Dr. Engledue cites, in which *con*volutionary motion was felt by the hand, does not demonstrate molecular. But even had Dr. Engledue seen molecular in the brain, that motion itself may only be the *working* of an instrument, and would not warrant the conclusion, that it is *itself* the evolution of thought, in either animals or men. More generally Dr. Engledue has not, in any part of his address, predicted any thing of the brain, which cannot be predicted of it as the medium or instrument of an alterior power." On this we would remark, that the evolution of thought is a phrase utterly unintelligible, save with reference to consciousness. When we observe and remember, hope and suffer, we are conscious of the evolution of thought and feeling; but to speak of the motion of the brain as the evolution of thought, is a mere confusion of terms, a wanton perversity of expression, a piece of mere unintelligibility. Save with reference to those facts of sensation and experience which connect mental action with the brain, its movements as outwardly discerned, would have no more importance to us in reference to thought, than those of the heart and the bowels—nay, than those of a watch, or other mere piece of mechanism. But having ascertained that the mind, the thinking and feeling principle, the *I* of consciousness is more specially seated in the brain, we then, on observing the action of the brain, necessarily conclude it connected with the operations of thought and feeling. Nothing further can be more eminently probable, than that, as the brain is specially the seat and organ of thought and feeling, that all the changes and modifications of these, are accompanied by corresponding changes and modifications, (in position or otherwise,) in the cerebral substance: but whether these workings are convolutionary, or molecular, is a matter of absolutely no importance with reference to the connexion; though the probability is, that the motions and changes going on in the brain, are much more minute than we have the power to appreciate, and is in favour of the molecular hypothesis.

The question then arises, upon the observation of this connexion, whether the phenomena observed be, the *cause*; or the material *condition;* or the *results* of the phenomena of consciousness. Now, it is perfectly obvious, that the mere coincidence of the activity of thought, with the material workings of brain, and their reciprocal correspondence (as observable for instance, in the case of a person having cerebral hernia, in whom when agitated, the exposed portion of brain protruded considerably, but when in a tranquil sleep, lay within the cranium) prove absolutely nothing, in favour of one hypothesis more than of the others. What Dr. Engledue has done, however, is even more than to assert the hypothesis of the workings of the brain being the cause, and the phenomena of consciousness; as if it were a *fact* irrefragably established, he has put it forth in a form which, although it must needs be interpreted in this way, is, in the *literal meaning* of the words, an *utter* and *glaring* absurdity. And the authors of the Declaration have firstly, instead of exposing with the contempt it deserves, and thereby reducing the question to its proper terms, and demolishing at a blow all the nonsense about '*cerebration*,' and the '*non-existence of mind*,' which has sprung from this parent root, and which constitutes the only novelty in Dr. Engledue's address, treated it with as much gravity as if, instead of being a mere *bull*, it were a philosophical proposition—and of having made the question of materialism appear to depend on a doubt as to convolutionary or molecular motion, which is utterly irrelevant to the matter in hand. Nothing, in fact, can be more feeble, more wanting in philosophic grasp, than the section in question; or, we might add, the bulk of the declaration. What can be more strange, than the confidence with which they declare the question of materialism to be absolutely of no consequence, as regards the question of the immortality of the soul? What! Materialism regards mind, or soul, but as the result of particular arrangements of particles in the brain: that brain moulders and becomes corrupt, dwindles at last, like the rest of our frame, to mere dust and ashes, and yet it is *unimportant* to our belief, that our soul is immortal, whether it be or not a mere *effect* of that substance which we thus *know* to be destroyed! What blindness to cause and consequence, or what reliance on human credulity has prompted this assertion? Materialism, as propounded by Le Mattrie,* Elliotson, and Engledue, regards mind as the *effect* of the brain; how can the effect subsist when the cause is removed?

We are an enemy to the introduction of all theological discussion in matters of science, and the two pursuits are wholly alien to each other; the one repudiating that scrutinizing term of mind which belongs to the other, and demanding as its basis, faith. But what we wish for, above all things, is truth and sincerity. It is quite gratuitously that parties drag theology into scientific discussions; let them take care that if they introduce it, they do so in confor-

* In the work of this atheistic physician, entitled *L'Homme Machine*, published about 1764, he advocates, with greater perspicuity, the very same doctrine, that man's mind is the result of his organization, and specially of his brain, which is now advanced by Drs. Elliotson and Engledue, as a consequence of phrenology! That the brain was connected with and necessary to the action of mind, was *a truth* known to Galen; that all things are the result of combinations of material atoms, is *an opinion* which like the opposite, that an intelligent soul is the cause of all things, loses itself in the antiquity of philosophy. Notwithstanding some individual exceptions, the history of philosophy plainly shows that thorough materialism and atheism have always been companions.

mity with truth. Now it is not sincere to say that the immortality of the soul, being revealed, therefore it is of no importance to that belief, whether the soul is, or is not, an effect of the organization. Will the parties who make this assertion pretend to affirm, that their religious belief is altogether independent of their rational convictions? Yet they must do this if they would be given credit for sincerity in saying, that whatever is thought concerning the connection of soul and body, is of no importance in reference to our belief of the soul's immortality. We repeat, the introduction of religion has been perfectly gratuitous; but if introduced, let it be done in a spirit of sincerity. That our exposure of the want of this in what has been affirmed in the declaration, may have the effect of precluding in future, the intrusion of this irrelevant topic, and the false pretence of which it is so constantly the parent, is an effect which we should be happy to anticipate.

The address of Dr. Elliotson, is the first paper in the proceedings of the Association, after the report of the committee. It is occupied entirely with mesmero-phrenology, and the cautions which it gives against the torrent of absurdities which have poured in upon us under this head, are of more interest, as coming from so enthusiastic a mesmeriser as the Doctor. He thus points out what, by the bulk of mesmero-phrenologists, seems wholly disregarded, the effect of suggestion operating upon excitability.

"There can be no doubt that excitement of cerebral faculties, singly and in various combination, in the mesmeric state, may be the result of mere suggestion. If the patient has an idea of the situation of an organ, such is often the excitability in the state, that the mere contact of any thing felt in that situation will irresistibly impel him, without any desire to deceive, to fancy it excited and thus cause its excitement. Nay, by misinforming a patient as to the seat of organs, combativeness may be excited by touching over benevolence. Further still, if an association is established in a patient's thoughts, a faculty may be excited by touching a distant part: benevolence by touching the nose, and combativeness by touching the chin: and combined actions and states of different organs may be produced in the same way. No wonder, therefore, that some fancy they have discovered two hundred new organs, and organs too for aerostation, gambling, drunkenness, insanity, felony, and I cannot tell what other absurdities." p. 239,

The Doctor points out the reasons for concluding, that the excitation of cerebral action depends on mesmeric action. These are—

"1. That the subject should have no means of knowing what is intended: that not a word should be uttered or any thing done which could by the slightest possibility suggest to him the expectation of the operator. There should not even be contact over any organ, unless it is known with *absolute* certainty that he is totally unacquainted with phrenology. Thus will suggestion, association, imagination, be prevented from acting.

"2. The operator should will nothing: he should, if possible, not know to what cerebral organ he is pointing, that the will may be prevented from acting.

"If the subject is ignorant of the cerebral organs, or ignorant of the spots over which the influence is being exerted, and the operator does not will or know what organ he is influencing, and the established faculty is excited always, or as often as any other mesmeric effect, or a vital effect of any kind from any cause is produced, I should consider the proof complete." p. 241.

"Now these conditions," he adds, "I have seen times innumerable," and he adds certain striking cases, all of which support organs previously admitted by phrenologists; those namely of self-esteem, attachment, benevolence, destructiveness in all, and in others wit, veneration, music, and colour.

"In six of my patients am I able to excite distinct cerebral organs. In *all* I can excite *benevolence* and *friendship, pride,* and *destructiveness.* In three I can excite these four only. In one, veneration also; in one, veneration, music, and wit also; and in one, music and color also. In four I can excite the organs by merely pointing: and these are the three in whom I can excite benevolence, friendship, pride, and destructiveness, and the one in whom I can excite only these and veneration.

"Three of these six patients cannot speak or see in the mesmeric state, and shew the action of benevolence, attachment, pride, and destructiveness, by silent language. Under pride the countenance scowls, and the head rises and retires from me; under destructiveness the look is furious, and the head is agitated, and also withdrawn from me; under benevolence the head approaches me again, and the countenance relaxes into placidity; under friendship there is an expression of delight, and the head comes towards me. In two cases the body is all rigid; but in the others, the hands squeeze mine ardently in friendship, and repel them disdainfully in pride, Under destructiveness the violence is sometimes great. In all but one, the effects are instantly arrested by breathing on the organ; and in them the state of feeling may be changed at pleasure and with rapidity, if the organ from which the finger is removed is breathed upon while the finger is removed to another. The expression of the passions in the countenance, hands, voice and gestures, is exquisite; such as nature only, or the most finished actor, can present," p. 245

On these passages we would make two remarks. The first is, that Dr. Elliotson does not specify all the means by which an operator may excite the action of certain faculties, indepedently of direct agency on their organs. He specifies will, but he does not specify sympathy, or the general influence of the current of the operator's thoughts and feelings on those of his patient. It is, however, generally admitted as one of the facts of mesmerism, that this influence often, perhaps habitually, does take place. Some patients are said to know while under this influence, all that is passing in the mesmeriser's mind. One of the commonest facts in mesmerism, and exhibited by persons who do not exhibit any of the higher phenomena, is, that when the operator tastes anything, the patient discerns its flavour: cases of this kind swarm everywhere in the records of mesmerism. But if there is community of sensation, how much more community of thought and feeling. In ordinary life, close sympathies

of thought and feeling are certainly much more frequent than those of sensation, which, however, are also of not infrequent occurrence; thus, persons having weak eyes, on seeing sore eyes in others, "frequently experience a sensible soreness in their own."* I have myself, after looking at persons who squinted, squinted myself for some minutes afterwards; and on perceiving a person draw a penknife across their thumb, in a manner which seemed likely to cut it, experienced an impression which, if not in the thumb, at least seemed like that of a cutting instrument drawn across the part. In mesmerism, which might be termed, if it were yet a science, (to constitute which, not only facts, but their embodiment in principles are necessary,) the science of sympathies, or sympatheology, the whole preliminary steps are such, as to place the operator and the patient in the closest attainable sympathy; and the degree in which this is obtained is well known, not only from the phenomena which have been alluded to, but others equally striking, such as the affection the patient displays for the operator, the pain felt at his absence, the facility in recognising any thing that is his, the tendency in many to come as close to him as possible. Notwithstanding, however, that these phenomena are the very most striking effects of mesmeric experiment, the inference to which they lead, viz., that any state of mind which the operator experiences, may by sympathy be propagated to the patient—thus, that if he experience an emotion of self esteem, he may, while manipulating, communicate the same to the patient—has been wholly overlooked by the followers of the mesmero-phrenology. The superior violence of emotion exhibited by the patient will not be an argument against this effect, for no doubt the emotions will be modified by his idiosyncrasy, and as he does not retain his self-possession, may be beyond his power to check or conceal.

The second remark we have to make is one of more considerable importance, and, in fact, of so much weight and conclusiveness, that we cannot avoid a sentiment of thankfulness that it is our destiny to place it now before the scientific public. It is this:—"*That the whole of Mesmero-Phrenology, as applied to the localisation of organs, rests on one portentous fallacy, viz., that nervous action is confined to the spot at which it commences.*

That nervous action knows no such law is perfectly well known,—its most striking characteristic is its extreme transmissibility. An impression is made on the nerves of the senses, and thence communicated to the intellect and feelings, with such rapidity, that the impressions seem, in a manner, simultaneous: thus the aspect of voluptuous beauty instantly causes the amative feeling, and yet, how much space have the impressions on the nervous fibres to traverse before they reach the cerebellum. Every one knows that an injury on any one part of the brain readily extends its influence to all, and a blow at one part of the head causes a vibration through the whole encephalon. Yet, in the very face of *these* well-known facts or laws, the whole pretended science of mesmero-phrenology reposes on the supposition that wherever an influence is directed to a point of the encephalon, that the impression is confined to the point at which it is originally made. And this monstrous supposition, inconsistent with every thing that is known of cerebral action, whether ascertained by consciousness, by general physiology, or by pathology, is yet the only basis on which the supposed localisations of the mesmero-phrenologists can be made to depend, and once removed, the whole fabric falls ignominiously to the ground.

The real characteristic of nervous action, in conformity with the operations of consciousness, of which it is the instrument, is its transmissibility, the ease by which impressions of one kind arouse those of another, those on the senses preceding those of the intellectual or affective organs, *i. e.* (to speak internally) the most trivial sensible impression often serving as the link to recal a whole series of connected thoughts and impressions, or again one feeling passing into others, of a nature analogous or contrasted. What reason is there why mesmeric influence should form an exception to a law of such extended universality? Is the feeling which is first affected, always the most strongly and permanently affected? If certain faculties again are habitually employed in certain actions, may not all the faculties concerned in these actions be called into play by an impression *on one of the group*, and thus complex effects produced, which blind and credulous, or sometimes, perhaps, not too honest empiricism, puts down as results of a single faculty. Again, with reference to some other of the monstrosities of phreno-mesmerism, is there no such thing as a reaction in the feelings? Do we not see in real life exultation succeeded by despondency and depression, anger by softness and tears; and when these contrasted results follow by impressions on the same organs, may not the inference be of some weight that the positive manifestations have exhausted the power of the organs, and that the effect of further stimulus is only to increase this exhaustion. Is there no readier solution than the monstrous absurdity of supposing organs of pride and humility, of generosity and un-generosity, to be located in each others' immediate vicinity? But enough, for the present, of this reproach to the judgment of the age, this deluge of empiricism. By facts, said Coleridge, I will undertake to prove anything. The same philosopher observed, that there was no torture most men would not undergo sooner than the trouble of thinking. We see strong instances of this in phreno-mesmerism. Excess in one extreme, generally produces a corresponding reaction, and we fear that, in the course of time, when these follies are looked back upon with the contempt they deserve, posterity, cured of this error, may be disposed to go too far the other way, and to use the term a believer in *facts*, as a synonym for ignorance and credulity. L. H. E.

* Smith's Theory of Moral Sentiments.

THE PHRENO-MAGNET.—No. 10, NOVEMBER.

The "Phreno-Magnet" for the present month does not contain much that is striking, or novel.—still it will be perused with interest by the class of readers to which it particularly addresses itself. As usual, it consists, chiefly, of correspondence detailing experiments, with an occasional speculation about some one or other of the many mysteries of mesmerism. The present number is of average merit: very readable in its way, but containing nothing that ap proximates to the higher orders of talent. It must, indeed, be regarded as merely a record of mesmeric experiments, and, in that view, it is both an amusing and a useful little periodical. For ourselves, we always open its pages with no trifling curiosity,—and it is not often that we are altogether disappointed. Indeed, we have a decided partiality for the "Phreno-Magnet;" for though it has not, of late, come up to our expectations, still we owe it a deep debt of gratitude for the entertainment and instruction which its first three numbers afforded us; for then it was that the astounding discoveries of phreno-mesmerism first broke upon our dazzled sight. But that is past—we are all familiar with these things now—and it will be many a long day, no doubt, before we can expect to enjoy another such treat in mental philosophy.

The number opens, as usual, with what Mr. Hall calls his "Retrospect." This Retrospect is, usually, a species of *glorification* about the onward march of mesmerism, and so forth, with occasional attacks upon some of the more prominent of its foes. It will always well repay a perusal. The present Retrospect is more subdued in its tone than the generality of its predecessors, and some readers might pass it over, without being struck by any peculiarity, and yet it contains a discovery to which, in reality, all that have been previously announced in its pages, are but trifles. This discovery ought, in our opinion, to have been ushered in with all the pomp and flourish which type could give, and yet a line, or so, of modest italics expresses it all. Perhaps, after all, this is best as it is. Simplicity is one of the elements of true greatness. Gentle, but impatient reader, can you conjecture what the new revelation may be? You cannot: therefore listen. It appeareth then, and must be henceforth believed, that the soul of man has the power, even while confined in this tabernacle of clay, of acting without the aid of bodily organs!! What have you to say to that? But let us give the story in the words of our prophet. Mr. Hall first relates a case of clairvoyance, in which the patient, "*late on a Saturday evening, read* VERBATIM, *two letters then coming to him by post, one from London, and the other from Sheffield, which were not delivered to him till the following day at Walsall,*" and continues thus: "Now we know very many cases akin to this; but this, at present, will serve for the argument, that there is in man *a sentient principle, amenable neither to the laws of time, space, or matter*, but having the power of cognizance, without the aid of corporeal organs, and the true nature of which, it is therefore reasonable to infer, mere corporeality can neither test nor comprehend." Such is the revelation as it has been given unto us.

Now this discovery clearly shews, that phrenologists have hitherto made a very unreasonable fuss about the great importance of the brain. It proves, moreover, how very reasonable have been many of the objections of their opponents. Our readers will remember, that instances have often been related by these persons of individuals who had lost the whole brain by suppuration, and what not, and who yet continued in the full enjoyment of all their faculties. This is as it should be, and yet, in our ignorance, we have hitherto laughed at these relations. In fact, it would appear a decided advantage to be altogether without brains, if we could manage to get rid of them quietly; as we thereby give the soul more room to move about in. Thus it is well known that if only a little extra quantity of blood be sent to the head, sensation, and intellect become more or less paralyzed, the soul being too much squeezed up. And it is equally well known, that very dull persons who have been so fortunate as to have had a portion of their brains blown away by accident, or otherwise removed, have afterwards become extraordinarily clever. Indeed, it is not unlikely, that the reason for our having a brain at all, is merely to prevent the soul from manifesting a degree of power which would be altogether unsuitable to our present state of probation. And it must be confessed that nature could not well have chosen for this wonderful prisoner a softer couch, or more gentle bands, consistently with the requisite degree of restraint. Well, well, these are wonderful times!

The other communications in the present number possess nothing particularly calling for remark, with the exception of an extract from the Rev. La Roy Sunderland, concerning the agent in magnetism. After setting aside the various other theories on the matter, Mr. Sunderland brings forward his own, which is, that the *agent* in mesmerism is *nervous induction, or sympathy*! This is quite equal to the discovery of the cause of gravitation.——Why do bodies fall to the earth? Because they do. That is the cause of gravitation. Why are persons capable of being mesmerized? Because they are susceptible of the mesmeric influence. What is the mesmeric influence?—Sympathy. What is sympathy? Deponent sayeth not. We shall have more to say upon these matters another time: for the present, we take our leave of the "Phreno-Magnet," very thankful for what we have received.

CORRESPONDENCE.

THE SUBSTANCE OF THE BRAIN.

The brain is composed of two substances, different in their colour, consistence, and function;—the cortical and medullary. The cortical is of a much darker colour than the medullary, and is the outer coat of the brainy substance. Modern anatomists have shown that it is formed of minute glandules; and, that the medullary is composed of small tubes, of a certain diameter. Whether the opinion of the immortal Gall, and others, with respect to the peculiar functions of these two substances is correct, is a a matter of some doubt;—they seem to have assigned a more important office to the medullary than to the cortical,—circumstances and physiological facts, however, seem to prove that it is just the reverse, and that the cortical performs a far more important function than the medullary. One fact worthy of consideration is, "that this grey matter increases in quantity in the exact ratio of the nervous energy."* Another fact which tends to substantiate this opinion is, that the difference between these two substances is not visible in the cerebrum till a later period of infantile existence. It appears earlier in the medulla spinalis, which contains a greater degree of grey matter, in proportion, than the adult. In the foetus, however, the grey matter seems to preponderate in the cerebellum, and bears a larger pro-

* Grainger on the functions of the Spinal Cord.

portion to that which it does in after years,—but in the cerebrum we always find *the medullary formed first.*

Now, from these facts it would appear that the cortical substance contained the function of the nervous energy. Every individual must have observed the coincidence between these facts and their manifestations. We find infants, comparatively speaking, possessing a greater amount of muscular power than adults,—which is, undoubtedly, in consequence of a larger quantity of the cortical being located in the medulla spinalis, the source from whence the nerves of involuntary and muscular power originate. Again, infants, as every one knows, manifest little, if any appearance of volition, or the workings of the intellectual faculties of the mind,—the medullary being the principle substance in the composition of the brain,—which substance has not the power of generating volition. At first sight, it would appear that the nature of the cerebellum was adverse to this opinion. Not so; for if the opinion of Mr. Henry G. Atkinson be truly recorded, it is decidedly in favour of it. He asserts the discovery of two new organs, situated in the cerebellum,—one of "muscular power," the other, "muscular sense." That such organs do exist, we have every reason to believe, as they can be successively excited by the aid of mesmerism. Thus, the composition of the cerebellum is in favour of the opinion, that the cortical is the essential element of the nervous energy. I shall conclude my remarks with respect to the cortical substance of the encephalon, by a reference to the interesting subject of insanity. How constantly do we behold the baneful and destructive effects of this pestiferous disease,—a disease, which often inspires its possessor with an irresistable desire to shed the blood of innocent and unoffending humanity. The crimes committed in this state are truly horrible,—but the curse of death, which the law often inflicts, through ignorance of the nature of insanity, is even more repulsive to the philanthropist than the crime itself. The homicide was, perhaps, the mere destroyer of *one* man. The law—the antiphrenological law—is the instrument of destroying the moral influence and the intellectual power of thousands! How often do we hear the plea of insanity urged in cases of homicide, infanticide, or parricide;—how often do we hear the gruff voice of the law crying for mistaken *justice?* The law which enforces capital punishments is an odious law,—a law established in direct opposition to the law of nature. Seclusion, but not solitary confinement, is far preferable to death,—and it is far more in accordance with the sympathy of humanity. It would protect the community from any further evils resulting from the manifestations of monomania in the individual, and give the unfortunate patient—for patient he is—time for restoration and repentance,—and would eradicate all the infectious and destructive effects of a public execution.

But to return to the subject.—On examining the brains of lunatics, we find a considerable loss of the cortical substance; in some cases this loss of the nervous element is so great, that the medullary might be seen shining through it, if not totally removed, leaving the medullary quite bare. In other cases it becomes exceedingly soft; and in many it is only partially in this state. The brain being in this soft and infirm condition, it is extremely difficult to dissect, and, often, upon raising the *pia mater,* we find the cortical substance adhering to it, and cannot be removed without either breaking the membrane, or dragging the cortical along with it. Now, while we find in cases of insanity these pathological changes in the cortical substance, and observe a corresponding diseased manifestations of the mind, we find no disease, no change in colour, or consistence, in the medullary. A careful consideration of the facts will leave little or no doubt that the CORTICAL *substance is the seat of nervous energy.*

T. SUMNER MERRYWEATHER.

[We are much obliged to our correspondent for calling the attention of our readers to this very interesting subject. We would caution him, however, from drawing premature conclusions on so delicate a matter. It would, no doubt, much interest our readers, if Mr. M., or any other of our correspondents, would furnish us with extracts from the principal original authorities on this matter. We should then be in a better position for coming to a correct opinion. At present, our own hands are too full to attend to it.]—ED.

To the Editor of the People's Phrenological Journal.

SIR.—According to promise, I beg to hand you a brief account of the proceedings last night, to test the relative value of Dr. Kinnear's theory, and the facts as ordinarily exhibited by phreno-mesmerists. At the commencement, Dr. K. was required to produce the promised results of his system of touching and suggesting actions; the Doctor declined making the experiment, explaining that he meant, that what could be done by phreno-mesmerism, could be effected by other means, totally independent of mesmerism,—but he required a patient who was completely ignorant of phrenology, and who must be operated on for the first time, and the phreno-mesmeric phenomena produced the first sitting. This was a condition almost impossible to be complied with, and appeared to be an abandonment of the position assumed.

Mr. Vernon proceeded to mesmerise a manservant of the house,—and after nearly half an hour's trial, was unable to produce any decided effect. He then threw a susceptible young lady into the mesmeric trance. The gentlemen of the committee suggested in writing the organs to be excited. The manifestations were most beautiful and decided—without a word being spoken—particularly those of veneration, with wonder, imitation, self-esteem, tune and time. Under the latter influence, the young lady waltzed most spiritedly with a gentleman present. When imitation was excited, sentences, in several languages, were pronounced, and repeated, with a correctness of pronunciation, which no one present could have manifested in all the languages. The young lady, in her natural state, does not speak any language but English. The organs were excited with, and without contact. Dr. Kinnear was then called upon to try his method. He endeavoured to produce manifestations of sewing, by pinching the finger, and asking her to mend his glove,—and several similar things,—but entirely failed—attributing it to the fact

that the lady would only take the hint from her mesmeriser,—who, then, under the direction of the Doctor, suggested to her what was wished,—but there was no manifestation elicited in any case. Upon pointing over benevolence, and asking to have a glove mended, the reply was, that she would not do anything that was wanted. Self-esteem being pointed at, she refused to do anything she was asked. Several of the committee produced the manifestations, by pointing with a silver pencil case to the different organs. This experiment was deemed most satisfactory,—and the opinion passed by the gentlemen appointed to decide the question was, that, as far as they could judge from the experiments, they were most confirmatory of the truth of phreno-mesmerism,—but as the condition required by Dr. K. had not been able to be complied with, they did not feel in a situation to pronounce a decided opinion.

Some after experiments were made upon strangers. One case was interesting. A lady was affected in a few minutes, and, although retaining consciousness, she was unable to open her eyes, or move the jaw, which was completely locked. She remained in this state for a quarter of an hour, indicating by signs that she heard and understood what was being said,—at the expiration of which time she began to feel uneasy, her jaw was freed, and after a few minutes the eyes were opened by the mesmeriser's touching them. These facts, Mr. Editor, need no comment. With many thanks for your obliging attention, and hoping to be able to furnish you with some other interesting cases, and, with your permission, some occasional remarks upon the theory and practice of mesmerism,—

I remain,
Your's, obliged, N. O. N.

To the Editor of the People's Phrenological Journal.

Birmingham, Nov. 6, 1843.

Dear Sir,—Permit me to correct a typographical error in my letter, at page 474; it should stand as follows,—*Humility* equi-distant from *Firmness* and *Pity*, *Adoration* near *Humility*, &c. I find by your note to the above, that you have seen feelings called into action by exciting quite different parts of the head to those stated by me as being the seat of certain organs. Now Sir, I trust in fairness you will state the exact situations of such organs as you have found to differ from those I have mentioned, as it will lead others seeking truth to the subject, and must be decided by the number of facts educed. With respect to your enquiry, whether I have made any observation upon the region of the brain marked by the Americans as the organs of *Suavity* and *Human Nature*, between *Comparison* and *Benevolence*, my answer is, that I do not believe any such organs lie in the locality you allude to. *Pity* is the next organ above *Comparison;* and *Benevolence*, or more properly termed *Generosity*, next. There is an organ higher up that gives a feeling for the love of nature. If I call it *Adoration* it may be thought I am going too far—time will decide—truth cannot remain hid. As to *Suavity*, it is undoubtedly in the approbative group.

I am, Sir, yours, respectfully,
Charles Pembrook,

NOTE BY MR. VERNON.

[We are desirous of affording every facility for investigating the subject, but Mr. Pembrook must not suppose that because we have seen similar effects to those related by him from the excitement of different parts of the head, that we are asserting, in opposition to him, that the parts we have seen excited are the seats of the organs connected with the feelings manifested. We have not seen facts enough to warrant drawing any conclusions on the subject, yet we have produced manifestations of humility by exciting the upper part of self-esteem, or rather, we might say between self-esteem and firmness. By holding the finger between hope and acquisitiveness, we have seen manifestations of industry. The front part of benevolence we have always found produce pity. In the most excitable subjects, we have never been able to produce the manifestations of the love of pets, or grief, by touching any portion of the intellectual region: we have induced it by exciting a little inwards of mirthfulness; and the last week, in amost carefully and patiently conducted experiment, by keeping the point of the finger fixed *immediately* above philoprogenitiveness, concentrativeness was excited. The young lady put two fingers of the right hand on the palm of the left, as is sometimes seen in earnest pleading; her face assumed an expression of deep and fixed thought, and after a few minutes she exclaimed, "I will think of it—you must think of it—of that, and nothing else." The finger was moved downwards, less than half an inch, and she immediately began nursing under the influence of philoprogenitiveness.]

Our correspondent, Mr. Robert Jones, has sent us a letter, of which we insert, below, the postscript, this being the only part of it that can be of any interest to our readers. We take this opportunity of saying a few words on the subject of his correspondence. His previous letter was answered in No. 40, and we see no reason for interfering with the decision of our predecessor respecting it. We are extremely sorry to have to disoblige any parties, in respect to the non-insertion of communications, but we have duties to fulfil which must not be neglected. We have not, at present, to complain of want of room. We shall always indeed *find* room, one week or another, for communications likely to benefit or interest our readers, but we must be allowed to judge as to what communications are of that character. Articles of real merit may always *command* our attention, but we cannot consent to fill our columns with mere ordinary communications about ordinary matters. Every one is now familiar with the usual phenomena of mesmerism; our readers, we are sure, would not thank us were

we to present them, week after week, with the details of experiments that are no longer novel: more especially, when, from the manner of the communication, what might be very well told in a few lines, is spread over two or three pages.

As to Mr, Jones's communication, in reference to the claims of Dr. Collyer to the honour of having first discovered phreno-mesmerism, we think it needlessly long. If Mr. J. will permit us to make the statement in our own way, we promise him that the fullest justice shall be done to the information he gives us.

In respect to Mr. J.'s opinion respecting the functions of the upper and lower portions of concentrativeness, we have to observe, that authorities differ about the matter. A friend of ours, an experienced phreno-mesmerist, on whose judgment, accuracy, and discretion in these matters, we place the greatest reliance, tells us that he has produced exactly reverse effects from those stated by Mr. Jones. The manifestations which he elicited by touching the lower organ were precisely those which Mr. J. received from the upper one, and *vice versa*. Our friend, to be as accurate as possible, went to the verge even of the lower organ, so much so, that a person standing by imagined him to be touching philoprogenitiveness. By removing his finger about a quarter of an inch or so lower, the manifestations of that organ were perfectly given. Here, then, are two opposite sets of facts; one set just as good as the other, offering a perfect contrast in every essential circumstance, and neutralizing each other as prettily as possible. If Mr. Jones's facts prove the existence of an organ of concentrativeness, in a certain part of the head, those of our friend prove it to exist in another part, and fill up Mr. Jones's locality with quite another organ. Rather awkward this. But we shall have a good deal to say about clashings of this kind on some future occasion. Mr. Jones's postscript is as follows:—

"In reference to that portion of the cranium generally ascribed by phrenologists to the function of concentrativeness,—the division into upper and lower portions I have considered so long and so well established, that to offer any further remarks in confirmation of this division, would be considered a work of supererogation. This division I first discovered by operating on recipients of the magnetic influence,—and have elicited, in some instances, the most clear and undoubted attestations of this division being true in nature. Subsequently I have repeatedly verified this subdivision, by discovering the bias of individual minds, in regard to their indifference about, or attachment to home; and have invariably requested a candid declaration on their part in reference to the strength of the feeling, and have as invariably found the lower portion well developed in those who professed to have a strong love of home, and a corresponding deficiency in those who felt no settled place a home, but, in common phrase, were "at home every where." With regard to the upper portion, to say what would be the most appropriate name to give to it, is not a very easy task to perform; though, from what may be called the mesmeric manifestations, I see no great reason for changing the word in present use. When excited, it appears to produce a fixity of thought—a concentration of the whole mental powers on whatever question may then be present to the mind—a desire not to be disturbed, not to be interfered with, but left to the contemplation of what appears to be an all absorbing thought in their minds. When spoken to, they will say, "hush!" and to the question, "What are you doing?" they will answer, "I am thinking;" and at the same time they appear completely absorbed in thought, while the expression of countenance, with the forward leaning of the body, are quite expressive of close and attentive thought.—I am not in a condition, at present, of adding much to what I have already stated,—but shall be happy in contributing, at some future time, my humble share towards furthering a science, which need only be understood to be esteemed and loved, but the worth of which cannot be estimated by figures."

TO CORRESPONDENTS.

Mark.—We regret our inability to insert this gentleman's letter. The readers of the Journal are already quite familiar with the class of experiments it details. Besides, the letter is very long for such a subject. Were it not for these circumstances, we should have been glad to have availed ourselves of it, as it is well written, and evinces much candour and discrimination.

J. B. S.—Yes. No. 40 completes the first volume of the Journal. A table of contents will, shortly, be prepared for it.

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THE

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A COMPLETE SYSTEM OF PHRENOLOGY.

(*Continued.*)

Dr. Gall attributed some of the functions of conscientiousness to this faculty,—but certainly, a man may be very generous and kind, without being remarkable for his justice. Indeed, the feeling under consideration, may generally be traced, in its abuse, to a want of the sense of justice to restrain it within its proper limits.

EXAMPLES.—Fortunately there are many illustrious examples of the strength of the feeling. In all these cases, we are enabled to confirm the truth of phrenology, by reference to the authenticated busts, casts, or portraits of the indivividuals. Henry IV., of France, was a very kind and benevolent man. When urged to inflict punishment upon an officer, who had conspired against him, his reply, "that he would do him so much good, that he should make him love him, in spite of himself, was an emanation of pure benevolence. Melancthon had this organ very large,—in fact, the predominance of this, and the other moral organs, over the animal powers, made him, in many respects, a very weak character. It was large in Dr. Dodd, who yielded, also, to its blind impulses; and in Bentegoss, who ruined himself by his benevolence,—but in this case it really amounted to monomania, although we generally consider that injury to others is a necessary symptom of madness. Eustace, the benevolent negro, who gained the prize of virtue, from the Paris Institute, had this portion of the head very fully developed. This example is one of the most valuable for phrenology. In opposition to education, and all external circumstances, he was impelled by his organization to acts, which have commanded the admiration of the world for their disinterested morality. The organs in the lateral region of the head were not deficient,—but were predominated over by the intellectual and superior sentiments. This organ was large in Fenelon,—and in his writings we find kindness, not merely shewn to classes or kindred—this may result from selfish feelings. He said, on one occasion, "I am a Frenchman, and I love my country, but I love mankind better." The character of the good Samaritan, is a perfect embodying of benevolence. The organ is large in Howard, Mrs. Fry, and indeed, in all, who have distinguished themselves by their philanthropy and benevolence. Many attempt to imitate these characters, emulous of the fame,—but not a few mistake their own motives,—while these really benevolent characters sacrifice their own pecuniary means, their comforts, and even the necessaries of life,—devoting their time, and energies, to visit the prisons and abodes of the unfortunate, and carry to them comfort and relief. Many of the modern philanthropists think they are benevolent when they purchase a ticket for a fancy-ball—not one quarter the price of which ever reaches the suffering objects—and they themselves sacrificé, in luxuries and decorations, more than would establish several families in ease and contentment. Abundance of example will be found of this organ in all circles, and of the corresponding manifestation. The deficiency of the organ may be observed in the skulls of the Caribs, and most of the savage tribes; in Bellingham, Caligula, Danton, and Robespiere; Lucifer, as drawn by Milton and Byron. St. Paul describes the manifestations of this faculty:—"Charity," he says, "vaunteth not itself; is not puffed up;" &c.

ANIMALS.—The situation of this organ in animals varies in different species, and in individuals of the same species. In those animals which approach nearest to man, such as the monkey, ape, &c., this organ is found in the same

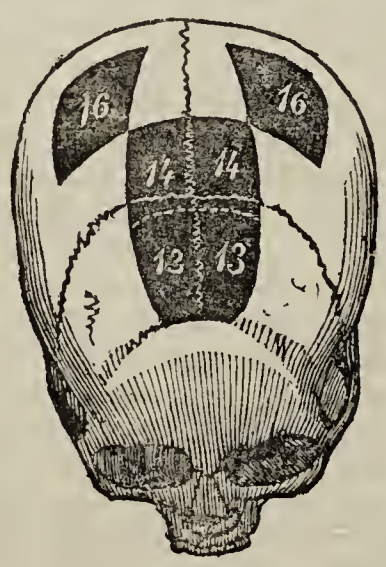
situation as in man. In the dog, the horse, &c., it is found in the middle and superior portion of the skull, a little in front of the parietal bones.

M. Vimont describes this organ as being much developed in the roebuck, the sheep, &c., while it is very depressed in the rat and the martin. It is easily observed in the horse—and the good temper of this animal may be safely inferred from the development of this portion of the brain,—it will invariably be found depressed in vicious horses. Among the carnivorous animals, such as the lion, the tiger, &c., it is very little developed,—but more in the lion, than in the other classes. The existence of this organ has been demonstrated in different species of birds—agreeing with their natural habits and dispositions. These facts may be attested by observing domestic animals. Among puppies, or kittens of the same age, belonging to the same litter, great difference of temper may be remarked;—one will snarl and growl as soon as it is approached, while another will court, as we may say, notice, and be delighted to be nursed and fondled. These facts cannot in any way be accounted for by education, or training,—it can only result from innate dispositions,—and these being always accompanied by particular conformations of the brain, indicated by the external shape of the head, it is impossible to avoid the conclusion, that the dispositions so manifested, by men and animals, are the functions of those portions of the brain, which are found to be more or less developed, in proportion to the strength or weakness of the feeling.

Natural Language.—The organ which gives rise to the feelings of benevolence, is situated, as we have seen, in the median line of the anterior superior regions of the forehead. The natural language of the body is in the direction of the organ. In observing groups of children at play, we may often see two, in whom this feeling is active, drawn by it to place the front parts of their heads together. This observation is verified by a saying there is in Germany,—"die kinder bockeln,"—that is, children strike their heads together like bricks. In adults, likewise, we may observe individuals drawn, as it were, towards each other, under the influence of this faculty:—they instinctively like each other, and wish to act together. To us it appears as one principal element in the state, or condition, which is called sympathy. The selfish and egotistical organs repulse each other,—the natural language of them is retreative,—and appears to bear the same relation to antipathy, that we have supposed to exist with benevolence and sympathy. It may be said that all pleasing activity of any of the organs of sensation, or mentation, excites the feeling of benevolence,—and its activity is immediately expressed in the face and the whole body. A pleasing smile is seen to play around the mouth—not a laugh—but what is known as a good-natured expression;—the whole of the features are gently relaxed—producing a mildness and benignity of feeling, which, when seen, is instantly read by all, but which cannot easily be described;—the muscles of the whole body are relaxed,—and the general carriage, in consequence, easy, yielding, and inclining;—the whole system is, as may be said, made passive to receive impressions,—and, from the tendency of the faculty, all things are, more or less, coloured by its own contentment, and, consequently, the mind and body are fitted, in this state, to receive the happiest and most pleasurable sensations.

The whole group just considered, in their natural language, speak but of calm dignity, combined with deference and gentleness,—and is indicative of what is phrenologically called the supremacy of the moral sentiments. The engravings shew this region of the head, large and small; and, as it is one of the most important groups of organs, students cannot be too particular in observing the difference in the shape of heads, in proportion to the developments of this region.

MORAL DIRECTIVE GROUP.



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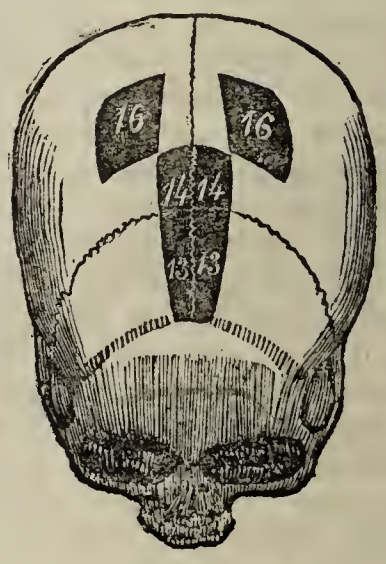

Small,

PROGRESSIVE GROUP OF FACULTIES.

We now come to the consideration of a group of organs, not less important, from the marked effect on character which they produce, than the preceding. Some, if not all of the organs, comprised in this group, appear, to us, possessed of a semi-intellectual character.

(To be Continued)

ON THE USE OF *TESTS* OR GENERAL LAWS IN PHRENOLOGICAL REASONING.

(By the Editor.)

It is of great importance, in a science like phrenology, that we should endeavour to establish, somewhat after the manner of the chemists, a range of *tests* by which all our reasonings, and deductions from facts, might be successively, and carefully tried. These tests will, of course, be certain fundamental truths of extensive application, and it will be found, that in proportion to their variety, and to the use we make of them, will be our chances of attaining to complete accuracy. Tests of this kind are already employed in phrenology, they are, of necessity, used in all reasoning: our object, therefore, is not to introduce an original idea, but to carry out, and systematize, more completely than has yet been done in the case of phrenology, a practice which we cannot avoid in some measure adopting. When Dr. Gall laid down certain rules for determining whether a mental manifestation was primitive, and, consequently, dependant on a particular organ, he adopted this method. His rules, or laws, were tests by which we were to try our various speculations, reasonings, and inferences from facts, in reference to this particular question; and in proportion as they harmonized, or clashed with these laws, were we to regard them with confidence, or distrust. Our object then, on the present occasion, is simply to direct attention to this subject by shewing, that important, and unlooked for consequences may result from the proper employment of even a single test judiciously chosen. In this matter, however, we must not lose sight of the fact that we are liable to all the chances of human fallibility in our selection of these tests. We must therefore endeavour to avoid relying with undue confidence upon any we may have chosen. It will be necessary frequently to submit the tests themselves to the ordeal of facts, and it will be found highly advantageous to have a variety of them, as we shall thus diminish the chances of error.

We now proceed with our illustration. One of the laws or tests, of most frequent application in phrenology, is, that every organ has a function peculiar to itself. We propose to assert, as another law, that every organ has an *excitant* peculiar to itself. This law is very distinctly borne out in the case of many of the external senses. The optic, the acoustic, the olfactory and gustatory organs, have each their specific excitant, each excitant acting upon one organ only. It is also borne out in the case of many of the internal organs. Food excites alimentiveness only, sex amativeness, infancy philoprogenitiveness, opposition combativeness, suffering benevolence, necessary consequence causality, and so forth. But the principle is not so obvious in regard to other organs, whether of external sense, or of the internal faculties. Here then is a case of conflict. Either the principle is not of universal application, consequently not a proper test, or our knowledge in reference to these latter cases is more or less incomplete, or more or less erroneous. Now then there is evidently a benefit, already derived, from the use of this test, whether it ultimately prove accurate or not; since it compels us to reconsider our opinions upon new grounds;—a task which cannot fail to lead to an accession of knowledge.

In the case of sensation, we find that the excitants of touch are of several kinds. Heat, moisture, pressure, and simple contact, all excite what is called the sense of feeling, or touch. Now whether is it more reasonable to believe that the law we have spoken of is inaccurate, or to suppose that we have hitherto been in error, in assigning several distinct functions to one organ? This is the question to be determined. Let us consider it.

One of the fundamental laws of phrenology, a law borne out by all our experience, and following from the very nature of things, is, that each organ performs but one function. In no intelligible sense can it be maintained that the sensation of heat is the same nervous function as the sensations of pressure, moisture, or simple contact. Under whatever aspect we regard these, they are as essentially distinct as the sensations of light, sound, odour, flavour, or any of our perceptions, or feelings. Every one is intimately conscious that all these sensations are quite distinct the one from the other. If so, all analogy—all phrenological analogy more especially, will lead to the conclusion that they have distinct organs. What is there to oppose to this conclusion? Nothing, except the fact that we are not able to point out these distinct organs as we can do in the case of the other senses. There are, however, abundant reasons why this inability should exist. It is obviously advantageous, if not absolutely necessary, that the instruments of these sensations should be distributed over the whole surface of the body, with a few trifling exceptions. The most serious inconveniences would result, were these nerves collected into distinct and separate masses. Again. The facts of all the nerves of common sensation, as they are termed, having a homogeneous appearance, does not in the least prove that they are homogeneous in reality, because their ultimate structure is too minute for human perception. The various portions of the brain are equally homogeneous in appearance, and yet it is certain that the brain is composed of many distinct organs, each having a distinct function. The nerves of motion are wholly undistinguishable, in appearance, from those of common sensation, and yet they have a perfectly distinct function. The opinion then that the latter are perfectly homogeneous, each fibre being capable of manifesting the different sensations of heat, pressure, moisture and contact, stands unsupported by a single fact, or a single analogy: while the opposite opinion is in harmony with all our knowledge of this department of nature, and is a necessary consequence of the fundamental principle of phrenology.* Under these circumstances then, we are perfectly justi-

* We shall take another opportunity of more fully discussing these opinions.

fied in asserting that the law we have laid down is fully borne out by all our knowledge of the external senses. Thus, the application of this law leads to a correction of our opinions respecting the number and nature of the external senses, while the investigations resulting from this application afford the means of testing the accuracy of the law itself. We can now then proceed to apply this law to the internal faculties, with increased confidence in its correctness.

Most phrenologists have admitted the existence of an organ, whose function is to produce hope. If there be such an organ, it must, according to our law, have a specific excitant, capable of acting on it alone. What is the excitant of hope? It is hard to say, if it have but one excitant. Let us see. A man has been tried for a certain crime, adjudged guilty, and condemned to suffer death. Yet he confidently hopes that his life will be spared. What is the particular cause, or excitant, of this feeling of hope? Can any human being *a priori* answer such a question? Surely not. But if hope had only one excitant, every human being could, at once, name what it must be, in every case whatever. Every one can at once name what is, and must be, on all occasions, the excitant, or cause, of the sensations of heat, sound, taste, &c., of the feelings of amativeness, philoprogenitiveness, or any other organ whose function is perfectly ascertained.—I do not, of course, speak of the mechanical excitation of organs, as by a blow, by an electric or magnetic current, by internal transmission of action from one organ to another, and so forth,—but of an appropriate and habitual external excitant. It is evident then, that no one could undertake to answer such an enquiry as the above, *a priori*, because every one knows that hope, in such a case, might spring from many very different causes. For instance, the prisoner might know himself to be innocent, and expect the speedy arrival of persons capable of proving his innocence. He might be an enthusiast, and hope that heaven would work a miracle in his favour. He might be a personal friend of the sovereign, and hope to have the royal prerogative exercised in his behalf. He might be rich, and hope to be able to buy himself off. He might have important disclosures to make, as the price of his delivery. He might have friends and dependents whom it would be dangerous to offend. He might expect to bribe his keepers; or to elude their vigilance. In fact, the sources from which hope might spring, in such circumstances, are innumerable. If then our law be true, there can be no special organ of hope. Here again is a new conflict, a new motive for reconsidering our opinions on this point, and a new test of the accuracy of our law. If there be an organ of hope, as now understood, our law is false. As we are not yet supposed to rely with entire confidence on it, it will be necessary to seek for some other means of ascertaining whether there is, or is not an organ of hope. Let us consider.

What is hope? Can it be defined, or described? Hope may be defined the desire of something probable. Its elements are desirableness, probability, and futurity. We cannot be said to hope for anything which we do not desire, which is not more or less likely to happen, or which is not future. Probability, again, is a mixture of doubt, and reliance, and these are results of the actions of different intellectual organs. The objects of hope may be as varied as the number of our primitive feelings, and of the combinations which they form. We desire something calculated to afford pleasure to one or more of our primitive instincts, and we believe the realization of this desire to be, at all events possible, and, in some degree, at least, probable. This desire and this belief, conjoined, constitute hope, which is neither an intellectual perception, nor a feeling, but a mixture of both. The desire has no special organ, neither has the belief. Both constituents are always complex, usually extremely so, and yet this *mixture* is to be a simple element! This is a glaring contradiction. Let us now take another view of the matter.

If we take two individuals, and suppose one to be in possession of a complete and healthy organization, and the other to be deficient, or idiotic, in regard to some one organ of feeling, say, for instance, amativeness, is it not certain that the latter will have fewer objects to hope for, than the former, *ceteris paribus?* This cannot be questioned. Let us suppose him deficient in philoprogenitiveness also, and the range of his hopes is still more diminished. Let us, in this manner, deprive him of every organ of feeling, except hope, and what can he then hope for; what hope can he possess? He desires nothing, for he has lost all the instruments of desire: how then can he hope for any thing, while he wants one of the essential constituents of hope? We cannot say that he desires hope, or hopes hope, for that would be to utter sheer jargon. Here then is an organ that has no excitant of its own: that has as many excitants as there are other organs of feeling: or, rather, that is excited by the combined action of a great many organs, affective and intellectual. To admit such an organ is to outrage the fundamental laws of phrenology, and to talk downright nonsense.

(*To be Continued.*)

THE

PEOPLE'S PHRENOLOGICAL JOURNAL.

We, again, return to Mr. Atkinson's theory of the functions of the cerebellum. Little need be said about his organ of "physical contention," as distinct from combativeness, which he appears to consider as the organ of mental contention, or something of that sort. Many of the arguments used last week, in the case of "physical destruction," and destruction as applied to the mental powers, are equally applicable in the present in-

stance. On that occasion, we argued, at some length, about what might, possibly, be Mr. Atkinson's meaning in making these distinctions, as we wished to shew their groundlessness under all circumstances, but having given a specimen of the kind of scrutiny to which he may expect his views to be subjected, by that portion of the phrenological body which is not to be satisfied by vague assertion, or a few dashing experiments proving nothing at all in reference to the point at issue, it will be unnecessary to pursue this portion of the subject farther. When we know what he means, we shall be ready to enter more deeply into the matter. We shall now proceed to the other discoveries.

The aggregate function of the parts of the cerebellum in which the above organs of "physical contention," and "physical destruction," are situated, is stated to be the desire of muscular action, or, at all events, this is the function of one of these parts. A little above these, that is to say, "at the top of the cerebellum, half way between the ear and the occiput, is the organ of muscular sense, a power chiefly giving a knowledge or feeling of the state of the muscles, and of their power to act." Now were we to admit that the desire of muscular action is an original instinct, and that there is such a thing as an organ of muscular sense, we do not see why two organs are needed in the case. We have not one organ for seeing, and another for desiring to see: one organ for perceiving music, and another for loving music, or desiring to produce it, to sing, to play, &c.: one organ for perceiving flavours, and another for desiring to exercise the perception, to go about tasting: one organ for feeling the distress of others, and another for wishing to relieve that distress, &c. &c. If we admit one organ for perceiving muscular motion, and another for feeling a pleasure in muscular motion, we must, to be consistent, double all organs, even the two hundred of the phreno-mesmerists. This would be no joke. But what does Mr. Atkinson mean by saying, that the organ of muscular sense gives a knowledge, or feeling of *the state of the muscles, and of their power to act?* We can understand such an organ to give a consciousness or perception of action, but nothing more. The state of the muscles means, their being at rest or in motion, their being healthy or diseased, their being more or less powerful. Does Mr. Atkinson mean to tell us, that the organ of muscular sense gives us information about all these matters. If so, we must say, that his organs are a great deal more knowing than those which nature invents. Does the optic apparatus give us a knowledge of its power to act—of its strength or weakness, or do we obtain this information by the complex mental process of comparing the perceptions we have at one time, with those we experience at another, as well as with those manifested by other people? Or does the organ of causality give us a knowledge of its own force, or healthiness? There would seem to be little difficulty about answering these questions. Again: the organ of tune, for instance, tells us when musical perceptions or sensations are experienced; in other words, when it is in action, we have these sensations. But does it tell us when we do *not* have them? Impossible. When we have them not, the organ is at rest, and can tell nothing. Information must be derived from active organs, not from sleeping ones.

But we have not yet done with muscular organs. There is still another. Beneath "muscular sense," "is muscular power, giving strength and force, inducing a desire to exert it, in working, walking, lifting, &c., according as it may be directed by other powers." Now what is the difference between the desire of muscular action, and the desire of exerting muscular action? The difference between the desire of moving the muscles, and the desire of exerting the muscles, is a little too microscopic for our perceptions. Between the muscular action of "tugging," and that of "lifting, working, walking, *et cetera*," there appears to us to be no trifling resemblance. But perhaps we are wrong: one organ may give the desire of action, *merely*, and the other the desire of action for the sake of exerting *force*. This will not much mend the matter. It is the same as saying that we have one set of organs to give the desire of reasoning, and another set to give the desire of exerting force in reasoning: one organ to give the desire of singing, and another to give the desire of singing forcibly. But why should we have a specific organ for giving muscular strength and force? We have no organs for giving any kind of intellectual or moral force, apart from those which give the perceptions and feelings. Why should there be a difference in the case of muscular action? But it is needless to criticise farther. Endless contradictions, and absurdities are the only consequences of the admission of such organs and faculties as these. Let us now see what can be said for the last of these discoveries.

"In the centre we have amativeness, and a physical sense, a sense of the functional condition, the feeling of heat and cold, and pain, of health and disease, or of the general internal and physical condition of the body, without reference to the muscles." Really, Mr. Atkinson gives us strange contrasts. First, we have three organs where one would be abundantly sufficient, and here we have but one, where half-a-dozen would seem to be required. Surely, the sensation of temperature, and the pleasures and pains connected with it, are, in every way, distinct from the pain arising from severe pressure, a wound, &c.; from the sensations connected with health and disease, and so forth. The sensation of temperature, is surely as much an external sense, as the sensations of contact, pressure, moisture, &c. It is, indeed, experienced, internally, to a greater extent than any of the other senses, but for this, there is a very obvious reason. We have *usually* no intimation of contact, or pressure, for instance, internally, because the appropriate nerves do not, to any considerable extent, at least, terminate in the internal organs. In a nervous bundle, every filament is surrounded by many coats of cellular tissue, and there must be considerable force in the excitant to cause sensation, when applied to the course of a nerve. But at the extremity, there is only one such covering, and, of course, it is there sensation is most easily excited. But the subtle agent that excites the sensation of temperature, penetrates through all coverings, and may be felt throughout the whole course of the nerve as well as at the extremity. The only difference will be that the effect will be produced more rapidly, in the one case, than in the other. We wonder Mr. Atkinson has not included hunger and thirst, in the catalogue of functions performed by this organ. They have as much to do with the "functional condition," as any of the sensations enumerated. "*Here then we seem to have completed, in a most beautiful, and* SATISFACTORY *manner, what was deficient, and what has been the cause of so much controversy—a knowledge, the importance of which to our health and happiness, we can scarcely too highly appreciate*"!! Really, Mr. Atkinson's faith is most astounding, or we must be stupid in no ordinary degree. We can see neither beauty, nor satisfaction, nor utility, nor truth, in these views. To us, they are a mass of confusion, and vagueness, utterly unphrenological, utterly unreasonable, leading to endless contradictions, and absurdities. But they are supported by facts. Indeed! A million of facts would not prove one absurdity. That cannot be true in fact, which is false in reasoning. Human reason is very fallible. Granted. But pray, are these opinions of Mr. Atkinson *facts*, or are they *reasonings?* We rather fancy the latter. The facts are the words and actions of the somnambulists alluded to. These we do not dispute. We believe words to have been uttered, and acts performed of the nature stated—by the parties spoken of—under the circumstances mentioned; we merely object to the interpretation given of them, to the inferences drawn from them, in a word, to Mr. Atkinson's *reasonings* about them. He fancies he is relying upon facts, when he is merely relying upon his own reasonings. We shall be told, probably, that we may argue as we please, but that there are the facts, and that they cannot be disproved. Who wishes to disprove them, or dispute them either? We are not at issue with *any* of the phreno-mesmerists upon points of fact, but upon points of reason. It is really amusing, as well as provoking, to hear the racket that is made, in these times, about facts, and the inductive philosophy, and all that sort of thing. The most egregious absurdities are paraded before us as matters of fact, when they are nothing, in reality, but silly *inferences*. Thus *the hundred and fifty* new organs, including such curiosities as gambling, felony, insanity, drunkenness, idiotcy, disease, infancy, swimming, flying, walking, &c., are all matters of fact. They are, at all events, as well supported as those which we are now considering; and, supported by perfectly analogous reasonings. We are well aware that it is not necessary to explain, to Mr. Atkinson, the difference between a fact, and an inference from that fact, but, nevertheless, he appears to have wholly overlooked it, in the present case. Otherwise, we cannot understand the boundless confidence with which he announces his opinions, and the extraordinary importance which he attaches to them. We can understand how a person might speak thus, about matters actually perceived by the senses; and there would be some excuse for so speaking, in regard to opinions even, were they backed by a clear and full argument: but we do not understand *mere naked opinions* being announced in this style, and, therefore, the most charitable conclusion is, that Mr. Atkinson has, somehow or other, mistaken these for matters of fact.

We had proposed to ourselves a somewhat fuller investigation of these "discoveries," and

of their consequences, than we have here given, but the matter appears so very plain, that we think it needless to argue further, at present. We have said enough to awaken the attention of our readers, and to impose upon Mr. Atkinson the necessity of a defence. If further explanations be needed, we are ready to give them. If Mr. Atkinson thinks proper to defend his positions, we are fully prepared to meet him. So far from having exhausted our resources, we have barely touched them. We have taken up this matter, not because we could see any thing, in these opinions, that deserved such trouble, but because, from their connection with phreno-mesmerism, they are likely to be embraced by others. We have attacked Mr. Atkinson's views, in preference to the still more objectionable ones of some other mesmerists, because we think more highly of his ability to defend his positions; and because, from his associations, he will be more likely to feel the necessity of defending them. Moderate phrenologists are anxious to come to some understanding about this affair of phreno-mesmeric discovery. If these novelties are true, they do not wish to be in the foolish position of opposing and ridiculing truth; if they are not true, they do not wish to be perpetually pestered about enormous absurdities, subversive of phrenology, and injurious to mesmerism itself. They want to have something more than mere facts, and mere opinions. The facts they do not care to dispute: they require to be shewn that the opinions are in harmony with them. Merely to be told that they are so is not enough. Those announcing these opinions have no claims whatever upon their *faith*; they do not regard them as authorities in phrenology, or as any thing beyond credible witnesses in matters of fact. They are willing to listen to arguments, but they have no notion of accepting mere opinions. Why should they? The facts appear to them to require a very different explanation.

It is to assist, as far as we can, in bringing matters to some satisfactory conclusion, that we have engaged in this discussion. It is hardly necessary for us to observe that the censure, implied in the foregoing remarks, has reference merely to a certain portion of phreno-mesmerists. There are many, we know, diligently, and enthusiastically engaged in these experiments, who proceed with great caution, and who announce their inferences, not merely without dogmatism, but with every reasonable degree of diffidence. It would be not only unjust, but absurd, to find fault with these, however much we might differ from the conclusions they have arrived at. Science has nothing to fear from those who pursue truth, with earnestness, and humility.

We would remark, in conclusion, that we do not call in question the opinion that the cerebellum is particularly connected with muscular action: but we see no sufficient evidence as to the nature of that connection. We think it also probable that the sensation of temperature, and the other sensations included in the term "common sensation," are, in like manner, connected with the cerebellum; but that there are any such organs there as Mr. Atkinson supposes, we cannot admit, without infinitely better evidence than has as yet been laid before us.

REVIEW.

PSYCHOGRAPHY, OR THE EMBODIMENT OF THOUGHT. *By Robert H. Collyer, M.D.* Zieber and Co., Philadelphia, 1843, p.p. 44.

Our attention was called, last week, by our correspondent Mr. R. Jones, of Liverpool, to the claims of Dr. Collyer, to the honour of having first discovered, what is termed the science of phreno-mesmerism. Since then, we have received, from Dr. Collyer himself, the pamphlet referred to above, in which he sets forth his claims, and explains some of his peculiar opinions upon this novel and exciting subject. The work is, obviously, a very hasty production, and gives but a sketch of the views of the author; still it affords such unequivocal evidences of talent, and contains, besides, so much that is curious, that we feel sure our readers will be gratified to see some extracts from it. We should be very liberal in this respect, were we not uncertain whether we might not interfere with the plans of the author. We do not yet know whether he intends to republish the work, in this country, or whether he means to reserve himself for a larger work, which we understand him to have in contemplation.

As to the claims of Dr. Collyer to be the first who excited the phrenological organs, by touching different parts of the heads of mesmerized subjects, we think them unquestionable. The only parties, in this country, whom we have heard of as claiming originality in this case, are Messrs. Mansfield, Atkinson, and Gardiner, whose experiments were made respectively, in October, November, and December 1841. The experiment of Mr. Mansfield, however, was, at best, but an approximation to discovery. In the United States, the discovery has been claimed by Mr. Le Roy Sunderland, whose account is stated to have been published October 23rd, 1841: and there were experiments performed in

New York, May 20th, 1841. When Dr. Buchanan made his discovery is not here stated, but as he always acts on the organs, in the *waking* state, Dr. Collyer does not consider there is any competition between them.

Now the discovery of Dr. Collyer was made in November 1839, in the little town of Pitsfield, Massachusets; two years earlier than the experiments of Messrs. Atkinson and Gardiner, and a year and a half before those made in New York. The Doctor repeated his experiments, a few weeks afterwards, in New York; in the following spring, in Louisiana; and continued them, without ceasing, till May 1841, when he gave public lectures in Boston, to large audiences.

The discovery was the result of accident. At a party, in Pitsfield, the Doctor was requested to mesmerise a young lady present. He did so, and wishing to examine her head, phrenologically, he passed his hands over it, and, to his utter astonishment, found that she responded to his touch on the organs of self-esteem, combativeness, mirthfulness, &c.

The work gives a certificate signed in February 1842, by three gentlemen of the town, substantiating this account. There can be no difficulty in fully verifying the statement, as Dr. Collyer is well known in this town, having given a course of phrenological lectures there, besides having graduated at its medical college. We happen ourselves to be acquainted with the locality, and with some of the parties spoken of by the Doctor. There are several other certificates confirming the principal of the other statements which it would, of course, be needless to give here.

We must now say something of the other, and principal portion of the work. It is rather singular that after all the experiments made by the Doctor, he should have, at last, renounced his belief in phreno-magnetism. This he did in October 1842, being, he tells us, up to that time, a firm believer, though, then, further and more careful experiments convinced him of his mistake. He does not deny the genuineness of the facts produced by himself or others, but attributes them all to the agency of the *will* of the operator. Neither does he deny that there is some fluid—electricity he thinks—which is the medium through which volition and thought are transmitted from the operator to the patient. He merely denies that any effects can be produced without the action of volition, or some reflection of thought from one mind to the other. In support of this view, he brings many powerful, ingenious, and novel arguments, some of which we shall presently give. At present, however, the Doctor has reverted to his former opinion, and now fully believes, from what he has lately witnessed, that phreno-mesmeric effects are really produced, apart from the will of the operator, or the previous knowledge of the patient. Still, he will have very little to change in the opinions announced in the work before us, for there cannot be the least doubt that the mesmeric phenomena are chiefly, at least, produced, in the manner here set forth. To some persons, there might seem inconsistency in this double change; to us, it appears in a very different light. It indicates, what, indeed, the whole work indicates—that the author is an independent, fearless, and conscientious seeker for truth. There is no attempt made to conceal or gloss over difficulties. Every thing is told—in a rapid, and dashing style certainly, but at the same time, in a frank and candid manner. Indeed, we are as much pleased with the fairness, as with the talent that marks the more argumentative portions of the work, with most of the opinions of which we very cordially agree. It would be unjust to estimate the mind of the writer, rigorously, by a production so obviously hasty, called forth by the necessity of the moment, and in which no pretensions whatever to authorship are made: but still the work is of a character to lead us to augur very favourably of a more serious attempt. As to the point upon which the author's opinion has changed, it is of that delicate nature, that the most reasonable and careful observers might come to different conclusions in respect to it.

There is one fault in the work which we might feel disposed to pass over, were it not of that class which the public seldom thinks of excusing. Our allusion to it therefore cannot do harm, and may do good. What we mean is a somewhat too obvious tone of gratulation, on the part of the author, at the view of his discoveries, and the results of his labours. For ourselves, indeed, we feel every disposition to look, with an indulgent eye, on a fault of this kind, especially in a young man. It is seldom that any thing like justice is done to the discoverer, or the man of original mind, by his own generation, and it requires no slight fortitude to refrain from the attempt of rendering that justice to ourselves, which we imagine others to have unkindly, or ignorantly denied to us. After all, the fault lies not in the feeling, but in the manifestation of it. The most modest man may rejoice and triumph, in his secret mind, at the contemplation of his good fortune, or success. This feeling is the support and the reward of his trials, and anxieties. But if he be wise, he will keep this joy a concealed treasure, or reveal it only to his tried friends. When his merit is acknowledged by the world, he will then be permitted publicly to rejoice, to a certain extent at least, but woe to him if he does so beforehand. And yet, if there be a time in which self-praise is really legitimate, it is when one is unjustly pressed down. But every thing depends on manner. Some persons have the art of praising themselves, without seeming to do so, or, at least, of doing so, in a way that does not clash with the feelings of others. This is a very useful art.

The author is entirely opposed to the host of new organs, introduced by some of the phreno-mesmerists; and his arguments on the subject, which are given in a clear, forcible, and rapid style, are extremely effective, and some of them strike us as quite original. We shall give these arguments in a future number of the Journal.

They deserve to be recorded on their own account; and they have an extra value as coming from one of the most experienced, and we think, also, one of the most clear-sighted, and candid of the phreno-mesmerists. The arguments are arranged under three heads. We give, below, an extract from the last head. We are, of course, not doing justice to the author's reasoning by presenting it isolatedly, and with some omissions, but we have chosen this passage, as containing several interesting facts and remarks. Next week, we shall lay before our readers, from this work, matter that will surprise them, unless, indeed, they are more experienced in these things, than we are.

"3rdly. The experience of facts is in direct contradiction to the pretended new discoveries.

"This is the most prolific portion of my theme. I have had, probably, as much experience, within the last four years, as any other person. I can, therefore, give much practical knowledge.

"When the nervous force has been transmitted to the brain of a recipient individual, and has produced the congestive or mesmeric state, ever after the operator has always the power of producing impressions, true *or false*, on the mind of the person so acted on. * * *.

"Another peculiar state of the recipient is, that he will always respond to his own previous knowledge of the location of the organs. I have seen operators excite the faculties of the mind in their recipients by touching portions of the head, not agreeing with the location of the phrenological organs. In one instance, I saw the organs of self-esteem excited, when the part touched was the location of continuity, and when benevolence, the function of veneration was the result; this arising from the ignorance of the operator. In fact, the organs may be located, as far as producing the manifestation is concerned, in any part of the body. I have produced veneration, combativeness, philoprogenitiveness, by touching the elbow, knee, thumb, chin, &c.

"In all these instances, the organ of the brain was unquestionably excited. I have never doubted this. But I do most *positivvly deny* that the organs *were ever excited* by the *transmission* of any force from the fingers. This I have proved not to be the case in about fifty new subjects; where no knowledge whatever was known of phrenology by the recipient, no accurate result followed. These experiments are so very delicate in their nature, that the whole host of mesmerisers have been led astray; not one, but admits the truth of phreno-mesmerism by the direct application of the fingers on the skull. When a recipient has been once acted on, and the experiments of phreno-mesmerism performed, the memory is so tenacious, that ever after, the exact results will follow in accordance with the original. I have a recipient now, who never responds to combativeness, except the mastoid process of the temporal bone is touched, (the bone behind the ear;) this location of combativeness in his mind has arisen from the fact that the first person who performed those experiments, thought that to be the true location of combativeness. The same with the occipital protuberance: whenever I happen to place my hand there, all the manifestations of philoprogenitiveness take place. Now no one will pretend to say that any brain is excited by the mere contact of the hand with that bone,

"Many will answer and say—'How is it that we have operated on persons who could have no knowledge of phrenology, who do not know the location of a single organ, &c.?' To this I answer—the mere circumstance of having once seen a chart, or head, or heard a conversation, would, during the nervous *congestive* state, bring all to the mind's eye with the same clearness, as at the moment of the impression, even though the impression were produced without any apparent effort of the attention. The case given by Abercrombie, of an ignorant servant girl, mentioned by Coleridge, during the delirium of a fever, repeated passages from theological works in latin, greek, and rabbinical hebrew, which, being taken down and traced to the works from which they were derived, were found to have been repeated with perfect accuracy. It turned out that she had been a servant to a clergyman, a man of much learning and peculiar habits, who was in the habit of walking backward and forward along a passage in his house, which led to the kitchen, and there reading aloud his favourite authors. The person, during the nervous congestive state of the brain, has the same power of reminiscence, and can recal with perfect accuracy the most transient and fleeting occurrences. I do allow that a person, while in the highest lucid condition, has the power of recognizing the particular portions of brain in action. This I have seen done; and this capacity is not confined to himself, for I have oftentimes witnessed the most perfect description of the diseased state of a person, whom the recipient never saw while in the waking or natural state. The diagonis was more precise than could have been formed by the ablest medical practitioner, though I never could yield my assent to the recipient's capacity of prescribing for disease, independent of the knowledge of medicines known to him in the natural state,

"In the first instance, that of recognizing a disease, they inform me that they experience in themselves all the peculiar feelings of the patient. One recipient always prescribed vegetable remedies, another mineral; and on questioning them while awake found that their information was confined to these.

"The possibility of exciting the brain in the waking condition, or what Dr. Buchanan has been pleased to call 'Neurology,' will now claim my attention. * *

"When a person has been charged with the nervous force, and is a good recipient, he or she can be acted on when awake. Any part can be acted on independent of the rest of the body, even before any attempt has been made to produce the unconscious or congestive state. This experiment was first performed by me in Boston, in the spring of 1841, on Mr. Nichols, a dentist; I then magnetized his arm, and it remained rigid for several hours afterwards; since which time I have fixed any part of the body, in a moment, in a perfectly immoveable condition.

"Mental hallucination can at any time be produced on persons in the waking state, who are recipients to the agency, with much more power and marked results than during the mesmeric state.

"I have made persons, when perfectly awake, believe themselves to be partaking of a good dinner; they would in their own minds be filling their plates from empty dishes. I could successively change the nature of their food, make potatoes turn into apple-dumplings, a turkey to a leg of mutton, water into brandy, sugar into aloes, or a piece of wood into a stick of candy. In one instance I took four persons and pressed their thumbs; they all imme-

diately commenced reeling as if intoxicated; I then restored them in an instant; I could obliterate from their memory the occurrence which had just transpired, and alternately bring them vividly to their recollection; and cause them to scream with agony on placing a piece of money in their hands, they feeling all the torture of burning metal when placed on their skin. I made two persons at the same time believe themselves bottles of ginger beer; they distinctly heard the fermentation within, and desired me, with all earnestness, not to pull out the cork, for that would kill them. I made a man fancy himself a general officer, a locomotive, &c. In fact, I know not a single condition but what may be brought about by the action of the mind of the operator.

"The same state of mind may be made the medium of curing the most distressing mental diseases.

"Two cases will suffice to convey to you the idea.

"On the 4th of July, 1842, a young lady and her aunt called on me. The aunt stated, that her niece was the victim of unreciprocated affection; a monster of a fellow had gained her young affections, and had left her. The innocent, confiding girl, who was before all vivacity and cheerfulnsss, had become low spirited and melancholy; her existence was an incumbrance; she had never been seen to smile since. The consequence of this may be anticipated; the mind bore on the physical frame; she was every day losing her health, and would soon have been the victim of misplaced affection, the issue of which would have been an early death. 'Broken-hearted' young ladies, if recipients, can be cured. I mesmerized her, and during the condition, *willed* her to forget the 'unfaithful one.' I was successful. She is now what she was before her unfortunate acquaintance.

"The same of a man who had twice signed the Washingtonian temperance pledge: the infatuation toward the 'fell monster' was too strong for his mind to resist. I reduced him in less than five minutes to the congestive state, when, by a powerful action of the *will*, I obliterated the tendency of mind toward strong liquors. Ever since, the man has remained temperate. This application of mesmerism will be of incalculable value."—p.p. 15,—16.—17,—18.

CORRESPONDENCE.

To the Editor of the People's Phrenological Journal.

SIR—In my last communication, I endeavoured to prove, that the cortical substance of the brain is the essential nervous element, which varies in quality, according to the intellectual power of the individual. Having then treated of its *quality*, I now propose to consider its *position*, and, from the facts which I shall bring forward, to endeavour to deduce the cause of the mesmeric phenomena. But I do not say that these facts, or the deductions that I shall draw from them, are the *only* means by which we can account for the wonderful effects produced by animal magnetism. The surface of the cerebral mass is, in many animals, divided by deep *sulci* into numerous winding and irregular convolutions. These convolutions vary exceedingly in different classes of animals, and constitute one of the scientific distinctions of their various tribes. In none, however, do we find the brain so deeply convoluted as in man, and it appears that the intelligence of the animal bears a remarkable proportion to the number of convolutions on the surface of its cerebrum. The monkey approaches nearest to man, in the form of his brain; but still we can detect a great physiological inferiority in its component parts. The most striking difference is the small proportion of the cortical substance, when compared with the medullary. Every naturalist must be aware of the approximation which is evident between the actions of man, and those of the monkey: many have beheld the analogy between the movements, form, habits, and even structure of the brain of the ape and man with apprehension, and truly humiliating reflections. Philosophers have endeavoured to prove the ape a species of the same genus as man; but these philosophers were but indifferently acquainted with the true physiology of the brain; for while they have ingeniously endeavoured to demonstrate the close resemblance of this animal to man—they have entirely overlooked the physiology, organization, *and functions* of the two brains; in fact, they have merely attempted to show a physical resemblance, and have entirely failed in proving intellectual equality. Take the ape—rear it as a domestic animal—nay, treat it as a human being—give it all the advantages of civilization, education, and science—and still the ape will remain the brute, and still retain all the animal propensities of its nature. What is the cause of this? It is not so much on account of the *form* of its brain as its composition. In fact, it has not a sufficient proportion of the nervous element—the cortical substance. The ape, I admit, bears a striking analogy to man; but there exists no affinity. In the ox, horse, and ruminantia, we find the convolutions are deep and well developed—they are less in the carnivora, and entirely obliterated in the rodentia. In all animals belonging to the mammalia, the *cerebellum* is *foliated*, or composed of strata of encephalic matter. These facts tend to shew that the powers of the manifestations depend, to a considerable degree, on the *extent of surface*, for where we find more convolutions, we necessarily find a greater extent of surface* of the cortical substance. According to Sœmmering, in the fœtus, there are no convolutions, till after the fifth or sixth month of gestation, after which period they appear, and gradually increase, till the individual arrives at adult age. If we diligently employ the magic powers of the microscope, in viewing the anatomical structure, and position of the cortical substance, we find that it is composed of six alternate layers of grey and white substance, the grey substance appearing to be opaque, and the white, transparent.

Now, from these facts, it appears to me probable, that the brain is nothing more or less than a *galvanic apparatus*. There is not, that I can

* The *pia mater* of a convoluted brain, is double and even treble the size of an unconvoluted one of equal size.

see, anything at all unreasonable in the supposition. It was, to a certain degree, the opinion of Rolando. "If," says he, "an apparatus composed of different non-metallic substances,—such as schistus, charcoal, muscular substance, and cerebral substance, and if the electrical organ of the gymnotus and torpedo, composed of albumino-cartilaginous, and other similar substance, is known to generate a great quantity of electrical fluid, why may not a similar principle be developed by the numerous layers of the yellow and cineritious matter of the cerebellum, and the surface of the brain? If we consider the peculiar position of the cortical substance, the deplorable consequence of its injury, its pathological state in cases of insanity, and the superior *extent of surface* found in man in accordance with his superior intellectual faculties, and the distinctly stratified construction of the whole, they all tend to prove and substantiate the opinion, that the encephalon is a perfect *cerebral voltaic pile.*

The action of external objects on the extremities of the nerves, generates a stimulus which traverses along the nerves to the medulla spinalis, and is conveyed from thence to the surface of the cerebral convolution, producing *sensation*, and it is this action of the galvanic apparatus which causes volition. These facts tend to prove the existence of an electro-mechanical agency constantly at work, more or less, according to external objects, which act upon it. If it be admitted, that the brain is an apparatus of this description, we shall find no great difficulty in accounting for the cause of animal magnetism; for it would follow, that every individual is possessed of a voltaic machine, but it does not prove that each and every individual is possessed of one of equal power—just the reverse—it must depend upon the *amount* and *state* of the cortical substance—the essential element of the nervous energy. All who have had any experience in mesmerism must have observed, that some persons are more powerful operators than others, and that persons are not equally susceptible of the mesmeric influence. We generally find persons of good intellectual powers make much better mesmerisers than patients, which I am inclined to think is on account of the voltaic battery of one being more powerful, and more highly charged than the other. It would appear then, that the magnetic power was resident in the brain, and I think the arms, hands, and eyes, are the conductors of this power from one machine, or from one brain, into another; and that it is the overcharged state of the recipient brain which produces that wonderful state of being called somnambulism and clairvoyance.

T. S. MERRYWEATHER.

To the Editor of the People's Phrenological Journal.

SIR,—When viewing the figure in No. 40, page 475 of the Journal, and considering the importance of the subject, it appears to me to be a very ingenious contrivance; and as it is highly desirable to simplify methods of taking the development of the brain, to gain the true elevation of the organs in proportion one to another, methods are greatly wanted; and, if there is any such in being, they are, as far as I know, kept very secret, yet on this subject, secrecy appears to me to be very odious, where publicity is so universally desirable; but this instrument is rather too simple; for, at the best, in its present form, it will only give the measure from the centre of the brain; and in the organs of form and amativeness, in particular, it is nearly if not totally useless; for these two organs are generally estimated by their breadth, that is, the organ of form is judged by the distance between the eyes, and amativeness by the breadth at the back of the neck below the Tentorium; hence, it appears to me, that if the limb of the instrument was divided into degrees, commencing the divisions from G, or from the Suture, which divides the brain into two hemispheres, it would thus give the possibilty of measuring the breadth of these or any other organ.

Again, before this, or any other instrument, can be of general use, it is requisite to have tables of the maximum and minimum size of all the the organs, at different ages, both for males and females, but this I conceive to be nearly impossible, until this or some other instrument becomes general; besides, it wants further improvements than I have yet heard of: but if this finds a place in the "People's Phrenological Journal," I may be induced to send the other improvements I have here hinted at, in a short period, which improvements I think will make it universal, and so perfect as to produce a mathematical demonstration of the size of the organs.

Yours very respectfully,—EDWARD PRESTON.

Oldham, November 15th, 1843.

[The graduation of the body of the instrument, here suggested, is certainly an improvent, as far as it goes; but we do not think much of any of these methods of ascertaining developments. They appear very well in theory, but there are practical inconveniences attendant on them, which we think will always forbid their being much used. We have never known an experienced manipulator who used a craniometer, or even the callipers, except occasionally. Some years ago, we went to the trouble of having a craniometer similar to Mr. Jones's constructed for us, and never used it half-a-dozen times. That of Mr. Jones' has one or two advantages of construction over ours, in the greater thickness of the spindle or pivot, and the better shape of the bulbs that enter the ear, but in every other respect the instruments are, as far as we can recollect, nearly identical—we never considered it worth while to have ours improved. We believe this kind of instrument has been long known to Phrenologists.—The inconveniences of such an instrument are, that it takes a long time to adjust it, and still longer to use it: that two persons are required, one to manage the instrument, and one to mark down the developments; that it is, however managed, disagreeable to the patient;

that if not pressed tightly against the ears it slips about, so as to render the marking very false, and if pressed tightly it hurts the patient; while, in either case, the elasticity of the ear renders a very accurate marking impossible. We do not know whether Mr. Jones has had such an instrument as this actually constructed, or whether he has merely put his idea on paper. If he has had the instrument made, he will find the use of it very tedious. In fact, before it could be half adjusted, a skilful manipulator would have thoroughly examined the head. We would decidedly recommend to all manipulators an *occasional* use of instruments. They are almost necessary where experiments are to be recorded, and they will be useful, otherwise, for fixing on the mind more accurate impressions of absolute and comparative size. But it is quite surprising to what a degree a practised eye can dispense with them. Indeed, we have no doubt, that some manipulators, if they accustomed themselves to mark down their measurements with the eye, in inches and parts of inches, would soon find the eye more exact than any of these instruments. At all events, in the use of the craniometer, it would be quite unnecessary to measure more than a few points here and there. The eye will give the intermediate developments perfectly. As to estimating the breadth of the organs, nothing will serve but the *judgment* of the manipulator. In ordinary cases, there will be no difficulty at all, in assigning the proper limits of the different organs; in certain cases, the best manipulators will be at variance. And not only that, but each one may find the greatest difficulty in satisfying his own mind. We are very glad to find our correspondents thinking of these matters. We had fancied that phreno-mesmerism had banished manipulation entirely out of the land. But by and by we shall be returning to the old track. We shall be glad to hear from Mr. Preston on the subject of the improvements he alludes to; and we would suggest to Mr. Jones the propriety of giving to the bulbs that enter the ear, a motion of their own round the spindle, that they might be able to remain at rest, while the instrument moves backwards and forwards. This will diminish the inconvenience to the patient. We do not see any indication of screws to retain the pivots at the required distance from the centre. These are indispensable. Without them the instrument would be perpetually slipping, and receding from the centre.]—Ed.

NOTICE TO THE PUBLIC.

We have to apologise to our readers for the quantity, and the random nature of the extracts, in the present number. By gross mismanagement in the office, we have been wholly deceived as to the quantity of such matter set up. We had intended a very small portion of it, if any, to be inserted this week. It is no part of our plan to be merely filling our columns, with what may first come to hand. This week, especially, we had much interesting matter at our disposal. We can promise our readers that nothing of this kind shall happen again.

OF REASON, WILL, AND FREE-WILL.

Dr. Gall,

(*Continued from page* 16.)

Nature produces an intelligent man; a happy organization, cultivated by experience and reflection, forms the reasoning man. As will and reason suppose the existence of fundamental powers, and as these latter are founded in organization, it is obvious, as I have already proved by other arguments, in the section on innate dispositions, that will and reason themselves are not indefinite powers, independent of organization, and consequently, that there cannot be such a thing as unlimited, and absolute liberty. It is clear too, that, by reason of his nobler organization, man is susceptible of moral motives, which he can weigh, compare, and judge; that the comparison made, and the judgment given, he is permitted to determine in consequence, or, in other words that he is endowed with moral liberty; that consequently, his actions are meritorious or blamable —moral or immoral.

Can we find organs for the Affections?

Most authors confound the affections with the passions. By passions, I mean the highest degree of voluntary or involuntary activity, of which any fundamental power is susceptible. Each passion supposes a particular organ, which produces passion, as its function, only when in its maximum of activity. It is altogether different with the affections. In the passions, the organs are active, exalted in their fundamental functions. In the affections, on the contrary, the organs are passive, they are modified,—struck, in a particular manner, agreeably or disagreeably. Modesty, terror, anguish, sadness, despair, jealousy, anger, joy, ecstacy, &c., are involuntary sensations, passive emotions, either of a single organ, or of the whole brain.

There cannot be a particular organ for joy, or sadness, or despair, or discouragement, or hope, or any affection whatever. To admit one, would be equivalent to admitting a particular nerve for pain, and a particlar nerve for agreeable sensations. Every nerve may be the seat of pain and of pleasure. If we admit a single organ for all the affections, it would follow, that every animal susceptible of one affection, would be susceptible of all, and that this organ, once set in action, all the affections, however unlike or opposite they may be, would simultaneously affect both man and brute.

Division of the Moral Qualities and Intellectual Faculties.

The moral qualities and intellectual faculties may be differently divided, if considered in a different point of view. We may divide them into sentiments, propensities, talents, and intellectual

faculties. Pride and vanity, for instance, would be sentiments; the instinct of propagation and the love of offspring, propensities; music and mechanics, talents; and comparative sagacity, an intellectual faculty. It is often perplexing, however, to fix the precise limits of each division. The intellectual faculties and talents, when their organs are very active, are manifested in company with desires, propensities and passions; and the sentiments and propensities have also their judgment, taste, imagination, and memory. The division into qualities and faculties which are common to man and brutes, and qualities and faculties exclusively possessed by man, is very valuable, I acknowledge, in a philosophical point of view. But since there are naturalists who think they perceive in some brutes, certain monkeys for example, an idea of justice and injustice, and even a sentiment of the existence of God, and since the more cautious observer would not venture to decide where the faculties of the brute end, and those of man begin, it must be acknowledged, that this division would not be generally satisfactory.

The best division appears to me to be that of fundamental qualities and faculties, and that of the general attributes of these same qualities and faculties. We thus preserve, and profit by the fruits of my predecessors' labours, while we establish the true theory of the primitive and fundamental instincts, qualities, and faculties of man and brutes. These two divisions have just been discussed. In order to complete my work, I now proceed to present to my readers some propositions of the highest importance, whose solution directly depends on the physiology of the brain.

What are the Motives of our Actions?

So long as the philosopher, the moralist, the judge, and the legislator have not a minute acquaintance with the springs of our actions, their interpretations, their imputations, their decisions, and their laws, will always be wrong. Hitherto nearly all writers have considered self-love or interest, as being the sole motive of our desires, and the will, as the sole agent in determining our actions. It is evident, however, that there must be as many motives to action, as there are primitive qualities and faculties. Here, too, the comparison of man with the brutes, will be of great utility. The actions of the brutes are simple, free, and exempt from all doubtful interpretation; while those of men, on the contrary, are almost always more or less complicated, and the individual himself is, very often, unable to render a reason for them. Their motives are doubtful, and never entirely free from capricious subterfuges. The most powerful springs of the actions of brutes, are the instincts of propagation, of love of offspring, of attachment, of self-defence, of the sentiment of property, &c. Their actions are very often determined by envy, jealousy, hatred, anger, cruelty, and benevolence. Surely no philosopher can pretend to have indicated the motives of animals, by attributing them to interest, self-love, or, the sole desire of self-preservation. Man being endowed and governed by the same desires, the same propensities, the same passions, and the same affections, his actions must be determined by the same motives. Our social, civil, and religious institutions are due, in a great measure, to the instincts of propagation, of love of offspring, of self-defence, of the sentiment of property, of vanity, ambition, the desire of independence and domination.

We have only to call to mind my observations on each organ, and its sphere of activity, to have a general view of the natural history of the moral man. I have given the reasons, why one person applies himself to the arts and sciences, while another finds his happiness in sloth and ignorance; why every one, from the Brahmin to the cannibal, from the slave to the despot, from the most superstitious devotee to the most arrogant infidel, believes himself possessed of excellent motives for his belief and conduct. Excite the fundamental qualities and faculties till they act with energy, and you will then see the motives of all the extravagances of passion, of all the wonders of genius, and of all the efforts of virtue and wickedness. Vary the age, sex, temperament, health, or nourishment. and you vary the action of the cerebral organs, and frequently, the desires, propensities, passions, and ultimately, the motives and determinations.

Thus far, the actions of men are scarcely less instinctive, than those of brutes. Knowing the qualities and faculties, and the degree of their activity, we can infer the motives; and the actions themselves, it is as easy to predict. The modest artist, under a thousand humiliations from the rich, will continue to cultivate the arts; the benevolent, after a long experience of ingratitude, will be always impelled to acts of beneficence; and the rash, crippled by wounds, will always rush into battle. Thus, in most cases, man has less to do, in originating his actions, than nature. But give to him all his prerogatives, let him act with reason and will, from that moment he becomes a free moral agent. Whoever would wish to foresee or judge his actions, must not only know his natural disposition, but also all the external elements that concur in producing his determinations; for the acts of reason and will are often diametrically opposed to the instigations of the desires, wants, and passions.

It follows, as I have elsewhere remarked, that if you would always have actions to be the result of deliberate reason, you must cultivate the inward qualities and faculties; multiply, ennoble, and enforce the outward motives. It follows, too, that the virtues and crimes of men may as justly be imputed to those who are charged with their education and government, as to those, who are themselves patterns of virtue or crime.

It is still objected, that all the qualities and faculties together constitute the *moi* of the individual; that every gratification of a desire, propensity, or passion, is connected with his interest and self love; and, consequently, that the motives of his actions are all resolved into interest or self love? I reply, that the philosopher's rage

for abstracting and generalizing, has also generated this false theory, which considers all the moral qualities and intellectual faculties, as simple shades of the single, solitary principle, sensibility. As sensibility alone will not explain the phenomena of voluntary motion, the different functions of the five senses, the moral qualities and intellectual faculties, so neither are interest and self love, considered as the sole motives of our actions, sufficient to account for instinctive acts, nor for the deliberate convictions of human reason.

Of the origin of the Arts and Sciences, and of different Communities.

The origin of the arts and sciences, and of different communities, is almost universally attributed to chance, necessity, or reflection. Even the earliest and most indispensable of human occupations, are derived from the same source. Hunting and fishing, it is said, were invented, because the spontaneous fruits of the earth were insufficient for the nourishment of families; and when families have become so numerous, as to form tribes and nations, they have been obliged to resort to agriculture; the women and children not finding sufficient food, man is obliged to attach himself to one woman only, and to share with her in the domestic cares. Here is the origin of marriage, and of society, which goes on increasing in numbers, and giving rise to all the wants. The inclemency of the weather is to be guarded against, and thence spring the arts of making clothes, and building houses and palaces. Thence also, arise the factitious wants, all the desires and passions, which are the result of inequalities of condition, vanity, love of distinction, and glory, ambition, avarice, war, luxury, with the excesses it cherishes, laws, police, religion, the thirst for strong emotions, music, eloquence, poetry, and shows.

If outward accidental causes are the source of all these inventions, why have they not produced the same effects in the brutes? Why does not the dog build a house to protect him from the inclemencies of the weather? Why do the partridge and raven perish of cold, rather than migrate like the swallow? Why is it that each animal satisfies its wants in a manner peculiar to itself? that each man has different wants, though outward circumstances are very nearly the same in all? In treating of the fundamental powers of man and brute, I have satisfactorily answered these questions. The true source of the arts and sciences, is our innate instincts, propensities, and faculties—our inward wants.

Who invented the spider's web, the beaver's cabin, the hang-bird's nest, the bee's cells, the nightingale's song? Who suggested the idea of a republic to the ants, of tricks to the monkeys, of sentinels to the chamois, of migration to the storks, of hunting to the wolves, of provisions to the hamsters, of marriage to nearly all the birds, and a large part of the mammifera? All these things are universally attributed to instinct, to an inward impulse, never to external circumstances. The cause of these inventions, therefore, lies in the organs, or, in other words, animals have received from nature, by means of organs, certain definite powers, propensities, talents, and faculties, which produce their habits, that have so often the appearance of spontaneous and deliberate actions It is precisely the same with man. All that he does, or knows, all that he can do, or can learn, he owes to the author of his organization. God is its source; the cerebral organs, his intermediate instrument. The same organ, which in the nightingale produces singing; in the beaver, the faculty to build; in the hamster, the propensity lay up provisions; produces in man, music, architecture, love of property. The poet, the orator, the legislator, the minister of religion, are the work of God. Chance may furnish a faculty, the occasion of displaying activity, but when the faculty does not exist, it accomplishes nothing. Pythagoras, passing by a blacksmith's shop, was struck with the gradations of the different sounds of the hammers. He examined them carefully, and made one of the most brilliant discoveries in acoustics, and one which has most contributed to the perfection of music. To Newton, the fall of an apple from the tree, was the occasion of discovering the laws of gravitation. How often has the sound of hammers been heard, and apples seen falling to the ground, without giving rise to the slightest presentiment, that these phenomena take place by virtue of certain laws of nature? I showed, while treating of each particular fundamental power, that oftentimes, the first *instinctive* efforts of genius are master-pieces. It is not until after he has constructed machines, and built houses, for ages together; spoken language, whether of words, orsigns; cultivated painting, sculpture, music, poetry, eloquence, that man thinks of seeking for the rules of these arts, and of fixing their laws. During the same time, too, he has rea soned correctly, without inquiry for the rules of logic; he has compared. and judged, without suspecting that the flow of his ideas was confined to any necessary catenation, He was a logician, long before he had learned any logic: and in the same way, he deci led what was just, and what unjust, long before having any acquaintance with jurisprudence.

ON THE LAWS OF THE VEGETATIVE FUNCTIONS.

(*Continued from page* 478)

They think that they cannot instruct their offspring early enough to read and to write, whilst their bodily constitution and health are overlooked. Children are shut up, forced to sit quiet, and to breathe a confined air. This error is the greater, the more delicate the children are, and the more premature their mental powers. The bodily powers of such children are sooner exhausted, their brain is liable to inflammation and serous effusion; and a premature death is frequently the consequence of such a violation of nature. It is indeed to be lamented, that the influence of the physical on the moral part of

man is not sufficiently understood. There are parents who will pay masters very dearly, in hope of giving excellency to their children, but who will hesitate to spend the tenth part to procure them bodily health. They, by an absurd infatuation, take their own constitution as a measure of those of their children, and because they themselves in advanced life can support confinement and intense application with little injury to health, they conclude that their young and delicate children can do the same. Such notions are altogether erroneous. The advantages of a sound body are incalculable for the individuals themselves, their friends, and their posterity. Body and mind ought to be cultivated in harmony, and neither of them at the expense of the other. Health should be the basis, and instruction the ornament of education. The development of the body will assist the manifestions of the mind, and a good moral education will contribute to bodily health. The organs of the mental operations, when they are too soon and too much exercised, suffer and become unfit for their functions. This explains the reason why young geniuses often descend at a later age into the class of common men. Indeed, experience shows, that among children of almost equal dispositions, those who are brought up without particular care, and begin to read and o write, when their bodily constitution has acquired some solidity, soon overtake those who are dragged early to their spelling books. No school education, strictly speaking, ought to begin before seven years of age. We shall, however, see in the following chapter, on the laws of exercise, that many ideas and notions may be communicated to children by other means than books, as it is done in infant schools. When education shall become practical and applicable to the future destination of individuals, children will be less plagued with nothings, but they will be made answerable not only for their natural gifts, but also for the preservation and cultivation of their bodily constitution, since vigour in it is indispensable to enjoyment and usefulness. They will be made acquainted with the natural laws of nutrition, and with their influence on health. This knowledge will be of greater use than to forbid eating meat on certain days. Teachers, indeed, ought to know, that nothing is unclean or an abomination in itself, but becomes so by being ill used. Man must eat and drink to live, but he ought to avoid all unwholesome food, and whatever disturbs his health.

The influence of the laws of the vegetative functions is so great, that those who direct mankind, ought to be permitted to regulate them in many respects. The Mosaic law may serve as a fine specimen. All ancient legislators paid great attention to these laws, as well as to those of hereditary descent.

The submission of man to the laws of the vegetative functions is necessary during his whole life, but particularly from birth to the age of complete developement, since the time of growth is preparatory for the rest of life.

An additional observation concerning the vegetative functions is, that they, like all others, admit of great modifications, nay, even of idiosyncrasies. Some persons succeed under all circumstances: they digest whatever they eat; others suffer from particular aliments, such as mutton, pigeon, veal, cauliflower, &c. These, and all other particularities can only be observed, but can never be explained. In regard to them, every one must be his own physician. Demosthenes and Haller were kept in a state of regular excitement by drinking nothing but water. Coffee was the favorite stimulus of Voltaire, and tea that of Dr. Johnson. Sir Isaac Newton lived upon vegetables when he was employed in composing his famous treatise on optics. Hobbes sat in his study, enveloped in the smoke of tobacco, &c.

During the age of preparation, that is, from birth to the state of full growth, a third kind of laws is to be kept in view, and these shall be considered in the following pages.

ON THE LAWS OF EXERCISE.

These laws embrace what is called Education in a more limited sense, but in this respect many errors are caused by the true meaning of the word *Exercise* not being sufficiently understood. I employ this expression as synonymous with putting into action, and distinguish Exercise from Habit; the latter being the result of the former.

Habit.

Habit has two significations: it sometimes indicates the result of diminished activity, and at other times a greater facility of acting. A power being too active, becomes fatigued, diminishes, and is finally exhausted. Moreover, all natural powers become accustomed to external impressions, and the former become the less affected the longer the latter are applied. The mimosa sensitiva, when shaken for a certain time, ceases to fold its leaves. In the same way, each sort of impression on the organization loses its effect by frequent repetition. Even noxious impressions, when repeated, are less felt than they were at first. In this sense Mithridates accustomed his stomach and bowels to poisonous substances. The attendants and nurses of patients become in a certain degree insensible to contagious diseases in hospitals. The mind itself shows less energy at each repetition of the same function. It becomes accustomed even to misfortune and painful situations.

Organised beings adapt themselves in a surprising degree to external impressions, and a change of place and various circumstances is frequently less advantageous than might have been expected. Prisoners, who have been confined for many years to dungeons, or unwholesome habitations, fall sick when they obtain their liberty. Many morbid, but accustomed affections, such as old sores and exudations, &c. are to be removed with the greatest precaution, and sometimes to be left untouched. Body and mind successively take a turn which can be changed solely by degrees.

All changes which nature produces are suc-

cessive, and art ought to imitate her proceedings. It is the same in dietetic rules, and in every manner of feeling and thinking. Drunkards cannot leave off their bad habits suddenly without injuring their health. Those who are near starving from inanition, will perish if too much nourishment be given; and too much light dazzles those who have lived long in darkness. The bad effects of great and sudden changes of temperature on inanimate bodies, such as glass. or on plants, animals, and man, are generally known; Those who are accustomed to certain mental occupations, feel great reluctance to give them up. In the same way, great and sudden changes of political, moral, and religious opinions, are not borne with indifference. Habit is a second nature, physically and morally speaking.

The living generation, if not prepared for it, generally rejects every reform. It is only in process of time that the adherents to any new doctrine become numerous; and any doctrine, though false, when once admitted, will be replaced by another and a better only by degrees. Yet it is natural that the more agreeable a doctrine is, the sooner it will gain ground, and that a precept which commands resignation will be submitted to, in proportion to the reward it promises. Christianity assigns eternal happiness as the reward for temporal conflicts; and it was adopted by fishermen and the poor sooner than by the rich.

The law of modifying mankind, or of producing changes, is seldom understood by reformers. They are commonly too hasty; though, at all times, experience has shewn the danger and harm of such a proceeding. When changes are to be made, let them be gradual; the greater the alterations you wish for are, the slower must be your method of proceeding; keeping, however, constantly the aim in view. The precipitancy of common reformers can be excused only by their ignorance of human nature, and by their erroneous opinion, that it is sufficient to point out errors, and to propose principles, in order to perfec man, without considering that he must by degrees be prepared for, and accustomed to them.

The facility of accomodating man to new impressions greatly depends on age; it succeeds best during the period of growth, whilst in latter years we are less susceptible of changes. It is therefore not astonishing, that all new doctrines have been received and propagated by youth and new generations.

The law of accomodation, however great, never annihilates the general laws of life. It is even subordinate to them, and cannot prevent the successive changes of age. Again, every individual being born with a different constitution, and with different dispositions, is not equally capable of accomodating himself to circumstances, and hence each will present some modification, though the external influences are the same.—*Spurzheim.*

ERRATUM.

At page 31, 1st column, 7th line, for "she would *not* do anything," read, "she *would* do anything."

TO CORRESPONDENTS.

Dr. Browne.—We have to acknowledge the receipt of a pamphlet, and some other papers, from Dr. Browne, superintendent of the Crichton institution for the insane, Dumfries. We are much obliged by the favour, and by the kind wishes of our correspondent. We have not been able, as yet, to peruse the pamphlet. We shall be happy to avail ourselves of the permission given, in respect to it. Dr. Browne is in error in supposing the article he alludes to original. He will find, in No, 37, that it is accredited to Dr. Spurzheim.

M. B.—The difference between an *organ*, and an *apparatus*, in phrenology, is this. An organ is a single instrument, performing a single, or elementary function, An apparatus is a combination of two or more such organs, manifesting, of course, a complex mental result.

C. P. D.—A correspondent who is anxious to learn latin, but who has a small organ of language, wishes to know whether that circumstance will not be an insurmountable obstacle to the attainment of such an object. Certainly not. He has already learned one language, nearly as difficult as latin, and we do not see why he may not learn another. This language he learned, we dare say, in the space of three or four years, under many difficulties. If he will work judiciously, he will manage latin sooner than this. But he must not think of following the old methods of poring over grammars and dictionaries. He must adopt the "Hamiltonian," or some of the other excellent systems that have been introduced of late years. For his peculiar case, we should decidedly recommend the Hamiltonian system. The deficiency of his organ of language will interfere with him in the vocabulary merely, in the learning of words. If his other organization is favourable, he will have no difficulty in learning the grammar and spirit of the language. And even the learning of words will be rendered a comparatively trifling labour by the system we recommend. Let him adopt the old method, and he will have to make up his mind for ten or a dozen years of real drudgery.

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AND

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A COMPLETE SYSTEM OF PHRENOLOGY.

Progressive Group of Faculties—(Continued.)

They are less blind feelings than those previously considered,—in fact, three of them, viz., wonder, ideality, and imitation, in many cases, are so united in action with the intellectual faculties, that if not enlightened from their own innate properties, they are endowed, by virtue of the laws of combination, with an amount of intellectual perception, which clearly distinguishes them from the blind feelings and propensities. The region of the brain in which these organs are located, is deficient, so far as we know, in animals. It is the last formed in the human species,—and, alas! in few indeed, comparatively, is it fully developed,—and hence, in our opinion, the lamentable amount of ignorance, vice, and degrading folly, which dominates in all classes, from the prince to the peasant. The deficiency of this region of the head is the phrenological clue to the differences in ranks of society. The majority are not yet fitted for higher station. So soon as their organization, in respect to this group of organs, is sufficiently developed, in combination with a predominance of the moral and intellectual powers, it will be as utterly impossible to govern with bad laws, or to keep the many drudging for the few, as it would be to make the sun revolve round the earth, the streams flow backwards, fire to freeze, or, indeed, to revoke any fixed law of nature. Among all classes of criminals, and violators of the laws, we find examples of large benevolence, veneration, and, sometimes, a good development of conscientiousness,—but we are not aware of any single instance, in which, an individual, habitually addicted to crimes of low and grovelling tendency, has been accompanied with a full development of the progressive group of faculties. The first organ we have to consider is that of hope.

HOPE.

Metaphysicians have admitted the existence of this faculty; phrenology, then, only associates it with a portion of the cerebral organization. Dr. Gall believed the feeling to be a mode of activity of all the faculties; to some extent confounding this power, with a desire for any particular object in relation to any of the other faculties. Dr. Spurzheim discriminated between the two mental states. An individual may have a desire for wealth, glory, or revenge, without hoping to possess either, or, at least, his desire may be much stronger than his hope—a sick man may desire to live, when all hope is extinct. Dr. Spurzheim, by many observations, determined the seat of this organ; but in the latest of Dr. Gall's marked busts, this portion was left blank.

SITUATION.—This organ is situated on each side of veneration, in front of conscientiousness, and behind wonder. When well developed, the top of the head is broad, high, and full in this region; when small, a depression will be felt, or a sloping off on each side of the centre of the head. Dr. Spurzheim placed this organ rather more backward than it is marked on Mr. Combe's busts,—marvellousness extended to the front part of veneration, dividing hope anteriorly from imitation. Dr. Broussais describes it as being situated under the frontal and parietal bones.

The PRIMITIVE FUNCTION is hope, and this word is, to most, sufficiently expressive. This faculty cannot be said to give a tendency to any specific act, but, rather, a colouring and mode of action to all the other faculties. As there must be something to hope for, it tinges with its bright hues, not only the thoughts, but it is seen in the flashing eye, and heard in brilliant discourse. It always regards the future; it removes all difficulties; and, in many combina-

tions, it gives a tendency to acts of a speculative character.

AUXILIARY FACULTIES.—Wonder most especially aids the action of hope. This combination sees events the most astonishing and marvellous, accomplished in the future,—a happy heaven, or worldly success, that will strike the whole world with astonishment. Ideality and language added, and the effect is almost irresistable. It will combine with all the faculties. An ardent temperament much aids the manifestations. The perceptive faculties are likewise an excitement, under many circumstances, of hope.

ANTAGONIST FACULTIES.—The direct enemy to hope, is cautiousness. Secretiveness restrains its manifestations,—the reflecting faculties combine with cautiousness to oppose this faculty. When cautiousness and hope are both large, their manifestation may both alternate; at one time, the individual will hope much, and then be plunged in deepest melancholy. It is opposed by the lymphatic temperament, and the reflecting powers.

MANIFESTATIONS.—This faculty gives the tendency to believe in the future attainment of what the other faculties desire. From the confidence which it inspires in the future, a full development of this organ often leads to the indolent enjoyment of the present. In this respect, it is the exact reverse of cautiousness, which clouds the present, by anticipatory shadows of dark despondency. When very powerfully manifested, it leads to credulity, and induces promising, in reliance of future contingencies to be able to perform. Individuals of this class should never be relied on; their judgments are fallacious, because they see in the future imaginary results, which calm reflection would shew could never be realized. It is a spur to acquisitiveness. Business men with this faculty large, will ruin themselves, and all connected with them, by the neglect of the present, and their speculations for the future, and such men rarely benefit by experience; although a hundred times ruined, they will again hope, and feel confident that the present scheme will repair all past losses. The manifestation of this feeling is described by Shakespear, in his Richard the Third:—

"True hope mounts on eagle's wings,
Kings it makes gods, and meaner creatures kings."

It aids the exercise of faith, by inducing the belief of a happy life to come. Religious phrenologists have drawn the conclusion, that the existence of this faculty amounts to a proof of there being a world to come; in nearly all human beings, there is a tendency to look beyond the present. This fact has been noticed by Pope, whose lines are so well known, that their quotation may be deemed as supererogation; but it is pleasing to find corroboration of the facts of phrenology in the works of such men.

"Lo, the poor Indian, whose untutored mind,
Sees God in clouds, or hears him in the wind;—
His soul proud science never taught to stray
Far as the solar walk, or milky way;
Yet simple nature to his HOPE has given,—
Behind the cloud-clapt hill, an humbler heaven,—
Some safer world in depths of woods embrac'd,
Some happier island in the wat'ry waste;
Where slaves once more their native land behold,
No fiends torment, no christians thirst for gold."

This is a description of the faculty, combined with veneration. It assuages the fear of death. The religious views of different sects are much modified by this feeling: in some it is predominant, and all is promise in the future state;—with others, fear predominates, and the views are gloomy and desponding. It is beautifully described in the following passage:—

"Scorned, robbed, insulted, and reviled; the power of man, even death itself, cannot obliterate this feeling. It cheers man, and leads him to encounter and overcome every obstacle to the attainment of worldly honour and distinction; and when elevated and directed to higher objects by religion, it gives him the cheering prospect of happiness in eternity. It is the very life boat of our existence—the oil that calms that sea of trouble on which man launches at his birth. What would man be without its cheering influence? Yes; though clouds of doubt, and mists of uncertainty, may hover round, and for awhile obscure our horizon, it is hope can

'Smile these clouds away,
And paint the morrow with prophetic ray.'"

In order to observe the effect of this faculty upon the character of individuals, cases should be selected in which it is very prominent, or very defective. In the one case, the manifestations already described will easily be distinguished, whatever may be the age or situation—in childhood, manhood, or old age—in misery, or in the possession of the greatest amount of happiness—from the condemned criminal, to the reigning sovereign. In the opposite, the effects are not less marked. Many there are who are always the victims of a state of uncertainty—who are continually meeting with discouragement—who are afraid to attempt anything, and remain inactive and indolent for fear of consequences. In these cases, cautiousness will generally be found fully developed.

EXAMPLES.—Many might be quoted. We may refer to the casts from the heads of those criminals who have hoped, even to the last moment of their existence on the scaffold. It will be found large in the heads of gamblers and speculators. It is very large, combined with wonder and ideality, in the head of Destainiere, and the manifestations were in accordance. The same combination occurs in the heads of Demorlaues and Roland, both remarkable for their want of prudence and fanaticism.

The celebrated mathematician Parris, notwithstanding his intellectual power, his love of justice and benevolence, was forced (such is the influence of organization) to abandon the severity of mathematical demonstrations, and sacrifice himself to the illusions of ascetism, and hope of the future.

(To be Continued.)

EFFECTS OF CLIMATE, etc. ON HUMAN BEINGS.

(From Chambers' Edingburgh Journal.)

Human beings are liable to be very much affected in their form, stature, features, and complexion, by the circumstances in which they live; and the resulting peculiarities become hereditary in families and nations.

We see partial proofs of this, in the differences everywhere observable between the leisurely and the laborious classes. Take "the lady," who lives almost constantly within doors, employed at the utmost in netting, or needlework, and contrast her slim and delicate frame with the coarse robust figure of the fishwoman, or female field-labourer, who works hard in the open air all day, and it is impossible to doubt that physical conditions have made them respectively what they are. A similar contrast is observable between the powerful frames of a set of male rustics, such as we find in almost any of the provinces of Britain, and the diminutive forms of the inhabitants of London. The cause is obvious. Constant muscular exercise in the open air, accompanied by nutrition, sufficient in quantity, and healthful in kind, develope the bone and muscle of the one order of persons to a powerful degree, while the want of muscular exercise, and a life spent mostly within doors, act in the other with an opposite effect, notwithstanding the advantage of, perhaps, a superior diet. Even the native differences as to softness and elegance between the sexes, may be reversed by the operation of these causes. The women of Normandy, who labour constantly in the fields, are become much more masculine in form, than the petit maitres of Paris; and we could, in our own country, point out many men who, from parlour life, are infinitely more feminine in stature, and the texture of the flesh, than many rustic women. It generally requires a series of generations to bring out these results in their fullest extent; but even in the life of a single individual the effect may often be traced. Thus we often see, amongst the rustic population, females who are comparatively elegant in form, and of delicate complexion in their early years, but who become coarse after a brief experience of out-door labour.

When, in addition to hard labour, and exposure to the elements, there is an absolute deficiency of food and comfort, human beings become, in the course of a few generations, much degraded in form and aspect. An interesting remark, which bears upon this subject, has been made, respecting the natives of some parts of Ireland. "On the plantation of Ulster, and afterwards on the success of the British against the rebels of 1641, and 1689, great multitudes of the native Irish were driven from Armagh, and the south of Down, into the mountainous tract extending from the barony of Flews, eastward to the sea; on the other side of the kingdom, the same race were expelled into Leitrim, Sligo, and Mayo. Here they have been almost ever since, exposed to the worst effects of hunger and ignorance, the two great brutalisers of the human race." The descendants of these exiles are now distinguished, physically, from their kindred in Meath, and in other districts, where they are not in a state of physical degradation. They are remarkable for "open projecting mouths, with prominent teeth, and exposed gums: their advancing cheek-bones, and depressed noses, bear barbarism on their very front." In Sligo and northern Mayo, the consequences of two centuries of degradation and hardship exhibit themselves in the whole physical condition of the people, "affecting not only the features, but the frame, and giving such an example of human degradation from known causes, as almost compensates by its value to future ages, for the suffering and debasement which past generations have endured, in perfecting its appalling lesson." "Five feet two inches, upon an average, bow-legged, abortively-featured; their clothing a wisp of rags, &c.; these spectres of a people that once were well-grown, able-bodied, and comely, stalk abroad into the daylight of civilisation, the annual apparitions of Irish ugliness, and Irish want." "In other parts of the island, where the people have never undergone the same influences of physical degradation, it is well known, that the same race furnishes the most perfect specimens of human beauty and vigour, both mental and bodily."*

These facts correspond with others which have been ascertained respecting savage nations living with an inadequate and irregular supply of the necessaries of life. None of these are more remarkable than the natives of Van Dieman's Land and Australia, whose food is well known to have been of the most scanty and miserable kind. The faces of these people were marked by an unusual projection of the jaws, and size of the mouth, and their limbs were long, lean, and often bent. So also in the Peschernis of Terra del Fuego, a half-starved tribe, who are probably of the same race with the huge Patagonians; Forster observed, that the thighs are thin and lean, and the legs bent and badly formed. Slender, lean, and elongated limbs, are conspicuous features of most ill-fed nations; and the Europeans, who stand at the head of the human race in so many moral respects, are also distinguished by the superior straightness and strength of their lower extremities. It was remarked, so long ago as the time of Buffon, how far the form of the human body is affected by food. "Coarse, unwholesome, and ill-prepared food," says he, "makes the human species degenerate. All those people who live miserably, are ugly and ill-made. Even in France, the country people are not so beautiful as those who live in towns; and I have often remarked, that in those villages where the people are richer and better fed than in others,

* Dublin Universal Magazine, vol. iv., p. 658. The passages quoted, are in the arrangement under which they have been transferred to the last edition of Pritchard's Researches into the Physical History of Man.

the men are likewise more handsome, and have better countenances."

It is very obvious that the heat of the sun has an effect in darkening the complexions of human beings. A child, however fair in skin, if allowed to romp in the open air, without any shade over the head, will become what is called sun-burnt, or dusky, in a few months. There is reason to believe, that this peculiarity becomes at length hereditary, which accounts for the national darkness of the Spaniards and Italians, as compared with the people of central Europe. This point is, however, somewhat obscure. On the other hand, there are some curious proofs, of a certain degree of intercommunion between the white and black races of men. In some particular states of the constitution, the skin of whites becomes, either wholly or in part, black. Dr. Stratch records the case of a man who was converted by a fever into a perfect negro. On the other hand, it is well known that the black loses part of his original tint in a state of civilisation. It is remarked, in the United States of America, that while negroes kept at field-labour retain their pristine colour, those which are domesticated as servants, become paler at the second and subsequent generations, and also lose the African features, and other peculiarities. There are also instances of negroes losing their original colour, in whole, or in part, under the influence of disease, or some other constitutional affection. Blumenbach describes a young negro, servant to the person who kept the animals in Exeter Change, London, who became white in the middle of his body, and also in the region about the knees, without apparently ill health having any concern in producing these appearances. There is also an account of a negro female cook in London, who became partially white.

The researches of Dr. Pritchard have dispelled many of the ideas formerly entertained with respect to the *persistency* of the particular features of black and white races. The deep black tint, broad flat nose, projecting mouth, and woolly hair, are now to be found general only among the Africans inhabiting the hottest districts of that continent, and who have long remained in barbarism. There are throughout Africa several nations, unquestionably negro originally, who have acquired handsome forms and faces, as well as a lighter tint, in consequence of their living in mountainous regions approaching to the temperate climate. Such are the Kafirs of Southern Africa, a fine, graceful, muscular race, who practise arts, have governments, live in towns, and acknowledge a Supreme Being. Such, too, are the Mandingoes, occupying an elevated region in Senegambia, who likewise have governments and industrious arts: they are black, inclining to yellow, but have regular features. In character they are generous and open, and their manners are gentle. Their neighbours, the Jolofs, are even superior; in figure, they are a noble race, although their skins are of a deep black. What is more remarkable, "the skull of the Kosah Kafirs, though still retaining something of the African character, deviates very considerably from that type, and approaches the form of the European skull," particularly in the expansion of the front part. "Travellers," accordingly, "in South Africa, have been struck by the proofs of vigour, and acuteness of understanding, displayed by the Amazulah, Amakosah, Bechuana, and other Kafir nations."* There are also undoubted negro nations towards the north of Africa, who display a considerable superiority in personal aspect, and power of intellect, to the great bulk of that race. It seems nearly undoubted, that the ancient Ethiopians were a negro people, or a people of negro origin, improved by a temperate climate, and other physical circumstances; and modern travellers bear ample witness to the greatness of the monuments which they have left, testifying the advance they had made in civilisation. There is even reason to believe, that the people of ancient Egypt were of similar origin. The evidence is clear that a large proportion of them had black skins, while others were of a lighter tint, the latter being probably of the superior class, paled a little, as usual, by an in-door life. Putting this last remarkable instance entirely out of view, we cannot for a moment doubt that the negro organisation is capable of very considerable improvement, including that kind which implies an advance in moral and intellectual qualities. At this moment, in the little colony of Liberia, formed by free blacks from the United States, upon the western coast of Africa, we have, if recent accounts can be trusted, a community as purely moral, and as remarkable for prudent and skilful managements as any perhaps in the world. The history of the missionaries among the Hottentots, speaks to the same purpose. Those sent from Holland in 1792, who founded the establishment at Gnadenthal, were told that they never would be able even to fix the attention of this primitive people. On the contrary, their instructions in school, and their discourses on Christianity, were eagerly taken advantage of. Multitudes flocked from a distance to live at the settlement, for the benefit of the ministrations of the missionaries. It consequently became a populous and thriving town. The Dutch boors at first opposed the mission, thinking that the Hottentots might become reluctant to serve them; but they soon came to see, that the people who had become Christianised under the instruction of the missionaries, were far more useful and trustworthy servants, than the sensual and degraded pagans whom they had previously been obliged to employ. They were astonished to find the natives, under this system, *become quite a different people*. "Perhaps nothing in this account is more remarkable than the fact, that so strong a sensation was produced throughout the whole nation, and even among the neighbouring tribes of different people, by the improved and happy condition of the Christian Hottentots, as to ex-

* Pritchard's Researches, third edition, ii. 348.

cite a general desire for similar advantages. Whole families of Hottentots, and even of Bushmen, [a degraded and impoverished branch of the same people,] set out for the borders of Caffraria, and performed journeys of many weeks in order to settle in Gnadenthal. It is a singular fact in the history of barbarous races of men, that the savage Bushmen, of their own accord, solicited from the colonial government, when negotiations were opened with them with the view of putting an end to a long and bloody contest, that teachers might be sent amongst them, such as those at Gnadenthal."*

Instances of white people who have become black in consequence of migrating into tropical latitudes, are more rare, and not so distinctly made out. Yet detachments of the Arabian family migrated twelve hundred years ago into northern Africa, where they have founded states of some importance, and it is said, that, in some instances, they have passed into a perfectly black complexion, although improved in form and stature, and notwithstanding that they reside to the north of the negro countries. It has also been stated, that there are many Jews in Kongo, whose external appearance has assimilated to that of the native inhabitants. In one instance, a degradation, resembling that instanced among the Irish people, has taken place: it is in the oasis of Fezzan. "The general appearance of the men is plain, and their complexion black: the women are of the same colour, and ugly in the extreme. Neither sex is remarkable for figure, height, strength, vigour, or activity. They have a very peculiar cast of countenance, which distinguishes them from other blacks; their cheek-bones are higher and more prominent, their faces flatter, and their noses less depressed, and more pointed at the top than those of other negroes. Their eyes are generally small, and their mouths of an immense width, but their teeth are generally good; their hair is woolly, though not completely frizzled." They are a dull, phlegmatic people. Here we have, with black skins, negro faces, and woolly hair, a people descended from the white tribes of Arabia, and who still speak in the language of that country.

It may also be remarked, that in Hindostan, and in the central regions of America, there are almost all the shades of colour in various portions of nations, evidently one in origin, the variations bearing a general reference to the situations in which the people are respectively placed. For instance, the inhabitants of high grounds in Central America are pale, compared with those of the low districts.

(*To be Continued.*)

THE PEOPLE'S PHRENOLOGICAL JOURNAL.

So many arguments have appeared, in the present series of the journal, against the theories of phreno-mesmerists, that we fear some of our readers will be inclined to think we have altogether set our faces against the matter. This is by no means the case. The peculiar prominence we have already given to the subject, has been partly the result of accident, partly the consequence of the interest which it is, at present, exciting. We are far from being opposed, (in the sense here meant) to phreno-mesmerism. We fully believe in the reality of the excitation of the cerebral organs by mesmeric agency. We are, ourselves, experimenters, though, from various causes, not to so great a degree, as we could wish. But we have read, and heard a good deal, and seen a good deal in reference to the matter. We have contended against the new organs supposed to have been discovered, through the means of these experiments, because we regard the functions assigned to these organs as altogether opposed to the principles of phrenology, and to our knowledge of human nature, and because the facts adduced in their favour do not at all, in our judgment, necessitate the inferences drawn from them. But we are anxious that this subject should receive the fullest discussion. Our columns are open to the arguments of all who may differ from us in these matters. If they do not take advantage of the opportunities we afford them, the fault lies not with us. They cannot expect our support, until they have satisfied our judgment. They cannot ask us to be silent, while we believe them to be advocating grave errors. If they seek truth with entire simplicity, as indeed, we believe to be the case with numbers of them, to say the least, ought they not to rejoice at an opposition carried on by fair and legitimate means, and with every anxiety to do them perfect justice? This we trust has been, and will be the character of our opposition. Such opposition is the fire which tries opinions. It cannot destroy their real gold; all should rejoice to have their dross consumed.

Our own opinions upon this matter have been little, if any thing, changed from our first acquaintance with this new order of mesmeric experiments; they have simply become more decided, as facts have been more multiplied. It may be that we are prejudiced. If so, it is unconsciously. We are not aware of any influences that could cause us for a moment to struggle, even mentally, against evidence, in fact or argument. This is about as much as any one can pretend to, or any one require. We trust our phreno-mesmeric readers will be satisfied with these explanations. If not, they must be a *little* unreasonable.

* Pritchard, i. 185.

A correspondent, in the present number, is earnest in his hopes that we will not seek to deprive phrenology of the powerful aid of mesmerism, nor phreno-mesmerism of the aid of the "People's Phrenological Journal." We think it likely that he speaks the sentiments of many others of our good friends, and therefore, we have given these explanations. We are fully aware that our primary mission is to support truth, whatever it may be, and oppose error; but as to the phreno-mesmerists, as well as to ourselves, phrenology is truth,—practically, our mission is to support phrenology by every means in our power, to extend its influence, to watch over its interests, to put our readers on their guard against all pseudo-philosophy of this kind, however imposing in appearance. It is our duty to oppose that which appears to us evidently to clash with the first principles of phrenology. It is neither our duty, nor inclination to give a factious, or unfair opposition to any opinions, and therefore our pages are open for the freest discussion. When we are convinced that that which opposes phrenology is true, then we shall reject phrenology. But, until this conviction is impressed upon our minds, we shall give a fair, and calm, but a steady and uncompromising opposition to all that clashes with the fundamental principles of this science, however specious such opinions may be, however countenanced by authority, or apparently supported by facts.

Finally, we have something ourselves to complain of. Phreno-mesmerists have, hitherto, given us, abundance of facts, abundance of opinions, but exceedingly little argument. Now facts are valuable of necessity, opinions may be utterly worthless. Where opinions clash, argument is indispensable. In the present case, opinion do clash violently. We have a right then to expct that they shall support their views by abundant and careful argument. To refuse, or neglect to do so, must necessarily expose them to the charge of absurd pride, or superficiality, incompetence, or culpable carelessness. We speak, of course, of those who have given themselves prominence, in reference to this subject. The more private advocates of any opinion, have the right of acting pretty much as they please, provided they do not act unjustly. Phrenologists will be very ready to meet argument. Their own positions have been abundantly supported by argument from the commencement. They might, then, be almost justified in refusing to consider at all mere opinions. To be called upon to embrace them, contrary to their convictions, is out of all reason. *Now, as yet, phreno-mesmerists have brought forward little, if anything, beyond* FACTS, *and* OPINIONS. *There has been little, or no argument, to shew that the opinions followed necessarily from the facts. The thing has been* ASSERTED, *it has been* ASSUMED, *as if it were self-evident, that is all.* We beg respectfully to call the attention of phreno-mesmerists to this statement, that it may be refuted, if incorrect, or a remedy afforded, if true.

We give this week, from a recent number of *Chambers's Edinburgh Journal*, some remarks on the effects of climate, &c., on human beings. This article will form the commencement of a series of extracts from the best works, upon the important and curious subjects of Ethnology, and Ethnography. As we shall often have occasion to state our opinions upon these subjects, and as they will differ considerably from those generally entertained, our readers, no doubt, will be glad to be put in possession of a portion of the facts on which they are founded. In giving these extracts, we cannot pretend to follow any systematic arrangements. To do so, would necessitate an immense amount of preliminary labour, before we could lay anything before our readers. Indeed, the task of reading, selecting, and transcribing, must, under all circumstances, occupy much time and attention. We shall keep regularity in view, and conform to it when we can; but when it is remembered that the field before us is so immense, and that the sources of information are not always accessible, at the moment they are wanted, our readers, we are sure, will not be disposed to be hypercritical in the matter of regularity. Neither can we promise that these extracts will appear every week. Sometimes they may be crowded out by matter requiring immediate attention, and at others, we may not be prepared with the portion we wish first to give. We are thus particular in our explanations, to avoid raising expectations which we may not always be able to gratify. At the worst, however, we trust that, in time, our readers will have before them a large mass of curious and important matter, and that, altogether, the ethnological department of the Journal will be one of its most interesting features. At all events, it will be a novel one, for, as yet, we believe, phrenologists have done hardly anything in this depart-

ment of knowledge, though they are the only class of naturalists capable of cultivating it with full advantage. But the present vague system of regarding mankind as one family, variously modified by climate, food, and such like circumstances, offers no temptation to the study of ethnology. Indeed, if this system be true, the results to be arrived by ethnological researches cannot compensate for the labour of the attainment.

In the extracts that will be presented to them, our readers will find many clashings in opinion, and contradictictions in the generalizations of facts. They must only endeavour to seperate the mere opinion of the author, from his statements of what has been actually observed by him. They will thus be often enabled to correct his aberrations, and arrive, perhaps, at precisely opposite conclusions from the very facts which he has himself given. There are certain points which we would press upon their attention from the commencement. By keeping them in view, they will often have an easy solution of what might otherwise appear inexplicable, or contradictory. The first point relates to the essential difference existing between the question of organic deterioration under the influence of unfavourable circumstances, and that of organic improvement under an oppostite state of things. As to the first, there can be little difference of opinion. A moment's reflection must convince every one that, in the very nature of things, deterioration is not only possible, but easy. To *injure* a delicate piece of mechanism, no skill whatever is requisite. No arrangements of the maker are needed for this purpose. It may be operated on injuriously by ten thousand external agencies, acting by blind chance as far as this matter is concerned. The human body, and every part of it, may be variously injured; wounds, poisons, fatigue, improper food, too much, or too little food, want of due provision against the inclemencies of the season, and a variety of other causes, are continually producing more or less of injury on some portion or other of mankind. This is a point on which there is no dispute. There may be differencces of opinion as to the exact amount of injury which a particular influence may produce in given circumstances, but as to the fact of the possibility, or the actual occurrence of deterioration, there are not, nor can there be, two opinions. But in regard to improvement the case is quite different. There appears no *necessity* that favourable circumstances should improve a piece of mechanism, beyond its original condition. Nothing of this kind occurs, with a few trifling apparent exceptions, in any mechanism of human invention. Every part in such mechanism retains the size, and shape, and nature, which the artist bestowed upon it. The most favourable circumstances add nothing to these, though unfavourable circnmstances might, in a variety of ways, interfere with them. Improvement must be the result of artistic skill and resources directed by specific intention, as in original formation. It must, in fact, be a new construction, more or less partial, or general. But injury may be the result of blind chance. In living mechanism, however, a superior art comes into play, and there are arrangements made for processes of formation, increase, change, and decay, to go on without the special intervention of the Divine artist. The question, therefore, in reference to these machines, becomes more difficult of solution. Still as they are matter, all the laws of mechanics must be applicable to their structure, and destination; and it may easily be shewn, that they must of necessity be strictly limited in the number, size, shape, and intimate structure of all their important parts. There may be a question as to what, in all cases, this limit may be: and this must be determined by an appeal to facts. But a slight consideration will make it evident, that the possibility of improvement is not at all to be inferred from the possibility of deterioration. This should be always kept in view.

In the next place, the reader will find it greatly to his interest to keep before his mind the following laws. It is not necessary that he should admit their correctness. Even without doing so, he will derive benefit from them, as they will often lead to reflections which might not otherwise have occurred to him. But observation will soon lead him to regard them, as, at least, highly probable. We assert then, as propositions which observation will hereafter fully establish—

1st,—That there has been at least *one* race of men never known in a savage state, whose members, from the commencement, possessed a refined and lofty cast of intellect and feeling; though, of course, a high state of art and science, or a complex civilisation did not exist from the beginning. As specimens of such a race may be mentioned the primitive Druids of the

British Isles, and the founders of the civilisation of ancient Italy, Egypt, Persia, India, &c. Not, however, the Druids of the days of Cæsar, who had in a great measure degenerated by intermarriages with other races.

2nd,—That other races of men have always been in a more or less savage state, and others again in various intermediate conditions.

3rd,—That whenever a race of men has advanced from a state of barbarism to one of civilization, it has become more or less mingled in blood with one or more higher races.

4th,—That whenever there has existed a permanent and *bona fide* aristocracy, there has been, at least, two distinct races, the ruling one being superior to the others, in courage, or capacity, or both.

5th,—That whenever there has existed a very high and complex state of civilization, there have been blended together *many* distinct races.

6th,—That in every country in which such a state has existed, it has been chiefly due to one great intellectual or sacerdotal race, everywhere the origin of the higher orders of philosophy, sacred and profane.

7th,—And as a consequence of the above, that in none of the races of men has there been a real progression in organic improvement: the apparent progression being, in all cases, due to intermarriage between different races. While races have been kept distinct, they have remained stationary: when they intermarried, they, of course, ceased to be the same races.

8th,—That the *earliest* civilization has proceeded not from Asia to Europe, but from the most westerly parts of Europe towards Africa and Asia. It is not meant by this that any empires or powerful states, existed in western Europe in very early times,—these require the junction of several peculiar races,—but simply, that the great intellectual race appears to have proceeded from the extreme west—from the British Isles in fact, to Gaul and Spain, to Italy, Greece, Egypt, Asia Minor, and other points on the shores of the Mediterranean; and in the north, to the countries of the Baltic, though perhaps there in a lesser degree.

9th,—That no pure race has ever materially altered its language or pronunciation—certain grammatical improvements, and the occasional creation of new terms excepted, and even these exceptions will have reference to the languages of the higher races only.

10th,—That, consequently, whenever we find a language with several dialects, the races speaking those dialects are mixed, not pure: dialects never springing up among the branches of a pure race, while those branches continue pure, however separated by distance, or other circumstances. If there be any exceptions to this rule, they must be so rare, and so peculiar, as not to interfere with its all but universal application.

11th,—That there have been at least, as many primitive languages, as primitive races: though it does not follow that there have not been many more, since some tribes may have become divided before having made any considerable progress in the formation of a language; in which case, in process of time, the different branches, though identical in blood would have quite different languages. In this case however, these languages would be similar in structure, and alike in accent. But if such things have at all happened, it is, in all probability, among some of the very lowest races only.

12th,—That all the primitive races have been distinguished from each other by numerous peculiarities intellectual, moral, and physical; and that these peculiarities are but slightly and transiently affected by food, climate, education and such like circumstances. Consequently, that it is intermarriage only that produces real and permanent changes, to any considerable extent.

13th,—That of these races, while they have continued in a considerable degree pure, some have been always, and by the necessity of their organization, and disposition—hunters, others herdsmen, others agriculturists, others fishermen, &c. The primitive occupations of some other races have not been as yet so distinctly made out.

It appears, moreover, that the various races of men have been, from the earliest periods, distributed over the earth, in situations suitable to their different peculiarities, as has been the case with all other animals, and that the different continents have had each their peculiar series of races. Thus, in the greater portions of North and South America, we have different tribes of hunters and fishers; while along the elevated plains of the Andes, we find numerous races of herdsmen and agriculturists; and all these are relatively, at least, aboriginal, and quite distinct from the tribes of Europe, Asia and Africa. Thus, northern Asia, with a great part of Russia, has, from time immemorial, been occupied by tribes of herdsmen, while in the south, are races of hunters, agriculturists, traders, &c. The primitive inhabitants of Europe have been mostly hunters.

This latter continent appears to have been primarily held by two peculiar divisions of mankind. The western portion, from Lapland to the southern shores of Spain, France, Italy and Greece, was principally, if not exclusively, occupied by races of men with *white hair* : the eastern division, with perhaps, a part of Asia, by races with *red* hair. The dark haired races of Europe seem to have migrated from Asia, from the coasts of Africa, and *perhaps*, to some extent, from a *terra Atlantica* over which the ocean has now rolled for ages.

The origin of these various races is shrouded in impenetrable mystery, as far as mere science is concerned. The Scripture history traces all humanity from a single pair, in the first instance; and secondarily from a single family of their offspring saved, in the ark, from a universal deluge. Admitting this, it follows of necessity, that the human family, not long after the deluge, underwent a great and miraculous change. That by the direct interposition of the Creator, it was suddenly subdivided into distinct species or permanent varieties, with distinct languages, and that these were miraculously, or in some unknown mode, speedily conveyed to distant and appropriate localities. The most glaring of the differences we now observe between different races of men, were in existence at a period little subsequent to the Scriptural date of the deluge: they have remained unchanged since. Then, as now, there were mighty empires surrounded by barbarism. Of the earliest of these, a faint whisper only has come down to us. The assertion of these organic changes, and dispersions, may seem preposterous. The Christian reader has no right to pronounce such a decision. He believes that, at a given hour, mankind was deprived of its single language, and that in its stead, there was suddenly formed, in the mind of each individual, a new speech. This, of course, was a miracle. One miracle is as easy as another. To change suddenly, and miraculously, the hair from black to red, or white,—the head and face from the Caucasian, to the Negro, Calmuc, or American types,—the stature from the medium height, to that of the gigantic Patagonian, or ancient German, on the one hand, or the diminutive Chinese or Samoide on the other, seems not a wit more difficult than suddenly to create in the minds of men totally new languages. To disperse these races over the earth, so that they shall be far apart, without any intermediate stragglers, is no more difficult than to do the same for birds, and beasts, and fishes. If both these dispersions are matters of simple migration, why did not the ox, and the horse, and the sheep, cross from the plains of Asia, to those of America, as well as the buffalo of the north, or the llama of the southern continent? Why did the *whole* of these latter animals cross over? Why did not man, in his transit, take with him some of the useful domestic animals he was familiar with? &c., &c. But we cannot pursue these enquiries now. The theory of primitive migrations, whether as regards the inferior animals, or man, is wholly untenable. The primary location of both is as much a special arrangement of providence, as their creation. Those who will not admit a post-diluvial miracle, must have recourse to the theory of distinct creations, or *to the wholly untenable hypothesis*, which attributes all the varieties of mankind to the influence of external circumstances.

These propositions and statements will appear to some preposterous; to others, dangerous. We are sorry for it. We press them upon no one. Our readers can treat them just as they deem proper. If they are false, their fallacy may be made apparent. Let it be so. If true, they deserve the most attentive consideration. Their present announcement is wholly accidental, and *impromtu*, and they are put together hastily and imperfectly. All this perhaps is premature and rash. It cannot now be helped; "what is writ, is writ." They are given at present without support; by and by we shall fully explain and defend them.

REVIEW.

Psychography, or the Embodiment of Thought, *By Robert H. Collyer, M.D.*

SECOND NOTICE.

We return with pleasure to this interesting little work; the more so, as the author has kindly permitted us to lay before our readers, whatever portions of it we think proper. In the extracts we gave last week, there are several facts related which we think of much value, in reference to the question of phreno-mesmerism. We do not see how the obvious inferences from them are to be resisted.

There are many others, not less curious, of a similar tendency, which we must pass for the present, to come to the second and most interesting division of the work.

This relates especially to what the Doctor has named "*psychography*, or the embodiment of thought." This title does not seem to us very felicitous. The word psychography is somewhat ambiguous, as it might have reference to some science of describing mental phenomena, as well as to the art (if we may so call it) of *writing* or im-

pressing the thoughts of one mind, on the brain or mind of another. The term *embodiment* of thought is also open to many objections. But after all, these are trifling matters. If it shall appear that the theory, and experiments of the author are a real advance in science, a more appropriate name will be found, or all inconvenience will be obviated by proper explanations of the sense in which the present one is to be received.

The author introduces his subject by some judicious remarks upon the oracles of the ancient Greeks, Romans, Egyptians, &c., and the magic practiced in the East, from time immemorial. Both he contends are illustrations of mesmerism. In the case of the Delphic oracle, the most famous in Greece, the mesmeric state is supposed to have been produced, by the priestess inhaling a certain vapour arising from a chasm in the earth, and conveyed into the sacred tripod on which she sat. "After a time, her figure enlarged itself, her hair stood on end, her complexion and features became altered, her heart panted, her bosom swelled, and her voice grew more than human. In this condition, she uttered words which were supposed to be dictated by the God." The relations given by the ancients, of many of the responses delivered by this oracle, are singularly analogous to the revelations made by mesmeric somnambulists in the highest state of lucidity. If we are to believe the accounts left us, many of these oracles were strikingly fulfilled, and indeed it is not easy to account for the extraordinary reputation to which they attained, even in enlightened times, without supposing them to have been often very accurate. But we will let Dr. Collyer explain the matter in his own words.

"The questions which were offered by those who came to consult the oracle were then proposed to her, (the priestess in the state above described) and her answers taken down by a priest. The oracles reached to such a degree of reputation, that, as Cicero observes, no expedition, for a long time, was undertaken, no colony sent out, and often, no affair of any distinguished family or individual entered on, without having previously obtained their judgment and sanction. Their authority, in a word, was so high, that the first fathers of the Christian Church could no otherwise account for a reputation thus universally received, than by supposing that the devils were permitted by God Almighty to inform the oracles with a more than human prescience, that all the world might be included in idolatry and unbelief, and the necessity of a Saviour be made more apparent. If the first fathers had been acquainted with the fact, that no entity can be thought of without the image of the same being painted on the mental vision, or on the brain, they would have seen that the priestess read the thoughts of those who came to consult her, and accommodated her replies accordingly; no one will question the *faith* of those who sought for information; their *singleness* of thought being an essential requisite to conceive a strong mental picture,"

"The condition of the priestess was identical with that of a mesmerized person. She could read the thoughts of any person, who was placed in correspondence, "*en rapport*," with her. There are hosts of similar cases among the ancients; the operations were confined to the 'wise men,' who were 'few and far between.'"

Our readers may perceive in the expression "no entity can be thought of, *without the image* of the same being painted on the mental vision," a glimmering of the author's theory. He conceives that thoughts are impressed upon the mind, in a manner somewhat analogous to the photographic process; and further, he supposes that a vital electricity is the medium of communication from mind to mind, and that this fluid so obeys the laws of incidence and reflection, observed in the case of light, that by obtaining a proper surface, the thoughts of one mind may be directed to it, and reflected from it, in such a manner, as to be distinctly perceived by a recipient placed at the proper angle. This latter view has induced him to attempt an experiment, which would, at first sight, appear to have been imminently successful. Should it ultimately prove so, it will be in the highest degree creditable to his sagacity, but to us it appears to be surrounded with the usual mesmeric difficulties, and to admit of a less satisfactory explanation. We shall describe it more fully presently. This experiment seems to have been suggested by the magical operations of the modern Egyptian magi, and we think it will interest our readers if we present them with a description of some of their feats. The following extract is given from some work not named; we cannot at the moment supply the omission.

"Lord Prudhoe, and Mayor Felix, being at Cairo last autumn, on their return from Abyssinia, where they picked up much of that information which has been worked up so well by Captain Bond Head in his life of Bruce, found the town in a state of extraordinary excitement, in consequence of the recent arrival in those parts of a celebrated magician, from the centre of Africa, somewhere in the neighbourhood of the mountains of the moon. It was universally said, and generally believed, that this character possessed and exercised the power of shewing to any visitor who chose to comply with his terms, any persons, dead, or living, whom the same visitor pleased to name. The English travellers, after abundant enquiries, and some scruples, repaired to his residence, paid their fees, and were admitted to his *sanctum*. They found themselves in the presence of a very handsome young Moor, with a very long black beard, a crimson caftan, a snow-white turban, eighteen inches high, blue trowsers, and yellow slippers, sitting crossed legged on a Turkey carpet, three feet square, with a cherry stalk in his mouth, a cup of coffee at his left elbow, a diamond

hafted dagger in his girdle, and in his right hand a large volume, clasped with brazen clasps. On hearing their errand, he arose and kindled some spices on a sort of small altar in the middle of the room. He then walked round and round the altar for half an hour or so, muttering words, to them, unintelligible; and having at length drawn three lines of chalk about the altar, and placed himself upright beside the flame, desired them to seek a *seer*, and he was ready to gratify them in all their desires. There were in the old days, whole schools of magicians here in Europe, who could do nothing in this line without the intervention of a *pure seer*, to wit, a *maiden's eye*. This African belongs to the same fraternity—he made them understand that nothing could be done until a virgin eye was placed at his disposal. He bad them go out in the streets of Cairo, and fetch up any child they fancied, under, ten years of age. They did so; and after walking about for half an hour, selected an Arab boy, not apparently above eight, whom they found playing at marbles. They bribed him with a few half-pence, and took him with them to the studio of the African Rodger Bacon, The child was much frightened at the smoke, and the smell, and the chatter, and the muttering,—but by and by he sucked his sugar candy, and recovered his tranquillity, and the magician made him seat himself under a window, *the only one that had not been darkened*,* and poured out a table spoonful of *some black liquid into the boy's right hand*, and bade him hold the hand steady, and keep his eye fixed upon the surface of the liquid †—and then resuming his old station by the brazier, sung out for several minutes on end—'what do you see? Allah bismillah—what do you see? Illala Resoul Allah! what do you see?' All the while the smoke curled up faster and faster. Presently the lad said, "*Bismillah!*" I see a horse—a horseman—I see two horsemen—I see three—I see four—five—six—I see seven horsemen, and the seventh is a *Sultan*? 'Has he a flag?' cries the magician—'he has three,' answered the boy. ''Tis well' says the other, 'now halt!' and with that he laid his stick right across the fire, and standing up addressed the travellers in these words:—'Name your name—be it of those that are upon the earth, or of those that are beneath it; be it Frank, Moor, Turk, or Indian, prince or beggar, living, and breathing, or resolved into the dust of Adam, three thousand years ago—speak, and this boy shall behold and describe.'

'The first name was William Shakspear. The magician made three reverences towards the window, waved his wand nine times, sung out something beyond their interpretation, and at length called out, 'boy what do you behold?' 'The Sultan alone remains' said the child—'and beside him I see a pale-faced Frank—but not dressed like these Franks—*with large eyes*, a pointed beard, a tall hat, roses on his shoes, and a short mantle!' The other asked for *Francis Arouet de Voltaire*, and the boy immediately described a lean, old, yellow-faced Frank, with a huge brown wig, a nutmeg-grater profile, spindle shanks, buckled shoes, and a gold snuff-box. Lord Prudhoe now named Archdeacon Wrangham, and the Arab boy made answer, and said, 'I perceive a tall grey-haired Frank, with a black silk petticoat, walking in a garden with a book in his hand. He is reading in the book—his eyes are bright and gleaming—his teeth are white—he is the happiest looking Frank, I ever beheld.' Major Felix now named a brother of his, who is in the cavalry of the East India Company, in the presidency of Madras. The magician signed and the boy again answered, 'I see a red-haired Frank, with a short red jacket, and white trowsers, He is standing by the sea-shore and behind him there is a black man in a turban, holding a beautiful horse richly caparisoned.' 'God in Heaven!' cried Felix. 'Nay,' the boy resumed, 'this is an old Frank—he has turned round while you are speaking, and by Allah, he has but one arm!' Upon this the Major swooned away. His brother lost his left arm in the campaign of Ava.'

'It is here evident' says Dr. Collyer, 'that he did not see any real spirit or apparition, but merely the *embodied* idea of the travellers, who depicted in their minds the image of Shakspear, as he is generally represented, &c."

"The swooning of Major Felix arose from the corroboration of the boy's description with his own conviction."

The Doctor proceeds to state that he has proved the "possibility of mental transfer" beyond the remotest chance of doubt. He relates several experiments in which the recipients exactly described what the operators wished them to perceive. It being necessary that the latter should form clear and vivid images, in their own minds, of what was to be seen by the patients. One of these experiments is described as follows:

"NEW YORK, Feb. 1841.—Magnetized Miss—— found her condition one of the most exalted; at the request of her father, who is one of the most eminent artists in the country, I brought before her spiritual vision the shade of Napoleon, whom she recognized at once; then Byron, and Alexander the Great. The experiment was performed with much care, so that she could not have previously known our intention.

* "The object of placing the boy near the window," says our author, "was evidently for him to inhale the fumes; and it being the only window open, the vapours would naturally be directed to that point."

† "Here, as with "the magic mirrors of old," is the medium used to embody the idea, which has been conveyed by the operator to persons in correspondence; the angle of direction from the boy's mind, must be in accordance with the angle from the person in correspondence."

I repeated the experiment on a series of persons with the like success. I was obliged to *embody* the image of these personages in my own mind, before they could be recognized by the recipients; whose brain during the congestive state was so sentient, that the impression was conveyed to the mind similar to the photographic process of Daguerre."

We believe that analogous experiments have been performed for years past. So far, that there is but little if anything absolutely novel in the Doctor's researches. The novelty consists in his explanation of them, or rather in his association of these phenomena with the action of light in the photographic processes of Daguerre, &c. All must admit that action in one mind or brain may produce similar action in others, through the media of light, sound, or nervous contact. These things take place daily before our eyes, in the natural state. In the mesmeric condition, there is merely a new medium, or agency called into play. The phenomena seem in every essential respect identical in both states. We can see no meaning in such expressions as the "transfer of thoughts" from one mind to another, if the expressions are to be taken literally. According to this, thoughts would be positive entities sometimes residing in one part of space, and sometimes in another; now at rest, and then thrown about from brain to brain, like so many material particles. We can easily understand how an action taking place at one extremity of an elastic column should immediately, by the oscillation of the column, cause a similar action in a susceptible body placed at the other extremity, but we see no necessity for the transmission of any substance, whether ethereal fluid, or anything else, much less for the transfer of thought, which is no entity at all. We shall now proceed to the curious experiment performed by the Doctor to prove his theory of the reflection of thought. It was thus described by him in a letter inserted in the "*Albany Argus*," in January last.

"I have always advocated the philosophy, that the nervous fluid was governed by the same code of laws which governed heat, light, &c., as radiation and reflection, and actually made a lady perform the same class of phenomena, which is the wonder of travellers in the East. She was desired to look into a cup of molasses, (any other dark fluid will answer the same purpose,) and when the angle of incidence from my brain was equal to the angle of reflection from her brain, she distinctly saw the image of my thoughts, at the point of coincidence, and gave minute descriptions of many persons whom she could have no idea of. She saw the persons and things, in the fluid, only when the angles of thought converged."

The drawing above, which we have taken from the work before us, will illustrate this description. The size of the angle formed by the converging rays, is, we suppose, a matter of no consequence. It may, we imagine, be more or less acute or obtuse without inconvenience—the essential condition being that the parties shall be in such a position that the angle of incidence shall equal the angle of reflection. This may be further illustrated by standing beside a looking-glass. As our position is more or less oblique to it, so must be, on the further side, that of a person who wishes to see our face in the glass. If the cup of molasses were a mirror, the parties looking into it would be in proper position, whenever they could see each other's faces in it.

Our readers will now have no difficulty in repeating this experiment. It will be only necessary for them to provide themselves with a basin partly filled with treacle, ink, or any other dark liquid, and procure a person susceptible to the mesmeric influence; then placing the recipient in proper position, and adjusting themselves in accordance with it, they must, we suppose, think away as energetically as they can. At first, it will be well if the object thought of be something simple, and of which they can form in their minds a clear image. By and by they may perhaps be able to proceed to more elaborate conceptions.

Now the question here to be determined is, whether the effect produced results from the *direct* action of the imagination of the parties, as in many other mesmeric phenomena, or whether there is *really* the species of reflection here described. Is the correspondence of the angles

necessary, because the operator *believes* it necessary, or is it necessary in the nature of things? There must be a great deal of experiment, most carefully and variously repeated, before the latter position can be considered as demonstrated. We *know* how great is the influence of will and imagination, in almost all, if not all mesmeric phenomena. With this fact before our eyes, we ought to be extremely cautious in admitting such a theory as is here advanced. If, on the other hand, its truth shall be ultimately demonstrated, the present successful experiment will reflect no little honour on the penetration of Dr. Collyer.

In respect to all mesmeric experiments, especially those connected with *clairvoyance*, it must be observed that the condition of the recipient varies continually, according to the state of the atmosphere, and other circumstances. We are told that "the best and most lucid state invariably occurs, when the atmosphere is clear and dry, the operator's mind perfectly self-possessed, and the recipient perfectly willing to be operated on." Similar contingencies affect the experiments of the Egyptian magicians. The following explanation of the different degrees of clairvoyance is the most satisfactory we have yet seen given.

"There are three kinds of clairvoyance. 1st—A mixed, confused condition of the recipient's faculties; he will confound much error with truth; will seem to guess, rather than actually see. 2nd,—Where the *thoughts* of the operator or correspondent, are painted on the brain of the recipient; this is mental transfer or phrenography. 3rd,—Where the recipient recognizes independent of the knowledge of the operator or correspondent. This is the only true *clairvoyance*. The three kinds are too often mixed by most operators, which accounts for the numberless discordant results. The highest or lucid condition is of short duration, is soon fatigued by exercise and merges into the second stage, then into the third or confused. The greatest care should always be observed not to confound these. And again, a recipient may be in the most exalted condition, and the mere approach of a person of sceptical mind, or bad feelings towards mesmerism, will cause him to lose his faculties in an instant; all then that follows will be vague and incongruous. The ancients were aware of this—whence the inscription on their temples, "unbelievers, keep at a distance."

We shall again return to this interesting subject.

MESMERIC FACTS.

(COMMUNICATED BY THE LATE EDITOR.)

A young lady being in the mesmeric trance, and having manifested many of the phrenological faculties—the organs being excited without contact—the operator requested a gentleman to pluck some hairs from his head, to try if the patient would exhibit any sympathy of feeling,—in so doing, he touched the region of self-esteem in the operator's head,—the patient immediately withdrew her hand, elevated her head, and displayed in a most striking manner, the activity of the feeling of self-esteem in herself.

Never having seen or heard of a similar result, the operator withdrew with several parties to speak of it—that they might to a certainty, not be heard by the patient. Upon returning, the operator took the patient's hand, and several of the organs in his head were touched, and corresponding manifestations were immediately elicited from the patient.

The deduction to be drawn from these facts, and which it is considered are particularly worthy of notice, is, that, it is not by suggestion, or will, that the feelings are excited in a mesmeric patient; the operator being much astonished at what chance had revealed, was not himself in any way under the influence of the feeling manifested by the patient; in fact, he was unable to say which of the organs were being touched in some instances; this was especially the case with respect to imitation and wonder, and ideality and acquisitiveness. As far as this case goes, we must from reasoning, admit the existence of a medium, by which the communion was established between the distant bodies. Sir Isaac Newton felt that there must be a medium to produce gravitation; he called it ether;—the air perhaps, is the medium of conveying light and sound. The nervous fluid then must be an entity, as are gravitation, sound, light, electricity, and through, or by some medium, when excited in one body, acts under certain conditions upon the sympathetic points in other bodies, at a distance.

It was intended to excite benevolence: the gentleman touched the mesmerizer's head in what he believed to be the region of this organ, and the mesmerizer thought his benevolence was being touched, when the patient exhibited the most lively manifestations of pity; in an instant the tones she uttered were expressive of pity—merging almost distressingly to grief. The finger was moved to mirthfulness—the pity did not slumber. The mesmerizer now feeling some alarm, as the patient was very susceptible of the effects of grief—willed with all his power to be merry—he worked himself up, to positively laugh—in fact, was merry; but no corresponding effect was produced upon the patient—the condition had some how been altered—the nervous entity was not received, either from some interruption of the medium, or alteration in the state of the recipient body.

The effect was relieved by exciting the organs of self-esteem and firmness. In this state, any motion of the operator, such as kneeling, raising the arms, &c., were immediately repeated by the patient. She likewise exhibits most correctly the phenomena which mesmerizers denominate the sympathy of taste.

The same evening, some interesting effects of vital attraction were produced in the waking state—a young lady's hand was fixed immovably around a common walking stick. Many present tried to demesmerize the hand, and the young lady made violent efforts to open it. There was considerable rigidity and extension of the muscles of the arms. At length, the mesmerizer went to the opposite side of the room, and looking intently at the hand, *willed* it to open,—it, as if by magic, flew open, and the arm, a little upwards. The inside of the hand was much irritated by the tightness of the grasp; in one spot

a slight blister was raised. In this case, was it will which opened the hand? or was there an entity conveyed to the hand which produced the effect? If the opposite effects of fixing and relaxing the voluntary nerves, &c., can be accomplished, the will must in some way, determine the effect, however the influence is conveyed.

[These are very curious, and some of them, we believe, novel results. Had time permitted, we should have had some reflections to submit, in reference to them. We shall allude to them hereafter.]—Ed.

CORRESPONDENCE.

To the Editor of the People's Phrenological Journal.

Sir,—For the sake of science and of truth, I rejoice to find that the "People's Phrenological Journal," will be still open to reports of mesmeric experiments, so far as those experiments have a direct bearing on the science of phrenology. This determination must be grateful to the feelings of every ardent lover of phrenology. Had it been otherwise, it would, in my humble estimation at least, have been a heavy draw-back to the great accession of talent accruing from the recent change in the management of the people's journal.* That there are difficulties in the way of reconciling the facts of phrenology, with the (at least) apparent facts of phreno-mesmerism, as pointed out by you in the last number of the journal, I have long since been aware. But may I take the liberty of reminding you, that the greatest difficulty of reconciling the facts of these two branches of science result rather from the theory of negative organs existing in juxta position with the positive organs, than from the increased number of the organs themselves. And it would be well here to remember, that few, very few indeed, hold the doctrine of negative organs. And I would opine that that number, small as it is, must have considerably diminished after the *expose* contained in one of your very able lectures; while, on the other hand, the numbers holding many of the new organs as established may be reckoned by hundreds, and the great mass of evidence brought forward by advocates of, and experimenters in phreno-mesmerism, ought to be considered tantamount to proof positive; while the doctrine of negative organs is at best but theoretical, and that theory will admit of a totally different explanation. For instance, instead of supposing the existence of an antagonistic, or negative organ, we will suppose the magnetic fluid taking, at one time, a different course in approaching to, or proceeding along, any given organ, starting from a different point, and consequently, affecting the same organ after a different manner, and, of course, producing a distinct and opposite mental manifestation. That the theory of negative organs is not—cannot be true, is further abundantly proved, by the extraordinary proficiency in predicating character arrived at by the old phrenologists, which, with the theory of negative organs, would have been absolutely impossible. That the science needed much cultivation and improvement also, is so evident from the number of their failures, and the nature of modern discoveries, that it need not be argued in proof. It is not unfrequently objected that what is a compound cannot be a simple, or, in other words, what can be explained by a combination, cannot be the function of a single organ. True, but the great difficulty arising here is to show clearly, and in a manner that can admit of no doubt, that the compound or combination under consideration can produce the particular mental manifestation, and no other. This I think, all will admit to be no very easy task. In reply, I would ask, is it not an undeniable fact, that the venerable founder of the science attained to no ordinary degree of celebrity in predicating character from development? And yet it is equally notorious that his great co-adjutor, Spurzheim, added several to the number of organs from which Gall drew his conclusions of character, and consequently, he, like many of his more humble followers, must frequently have ascribed to a combination of organs, what really, and truly belonged to one, and which has since been satisfactorily proved. If, therefore, this has been the case with the gigantic mind which reared this noble fabric, how much more so may it not be the case with those who do not hesitate to acknowledge themselves infinitely his inferiors. Therefore, the bare possibility of this being the case, ought to make them pause and consider, before they pass their dictum on the recently discovered organs.

To the new organ of marriage, (as we have named it) which I, and my brother, were the first to discover, it has been objected, that marriage was the result of a combination, and not of a single organ, and, that that combination was concentrated friendship, and therefore, that marriage could not result from the action of a single new organ. I cannot better reply to this argument than by emphatically asking, how often does marriage result from concentrated pride, from concentrated avarice, yea, from concentrated villainy? And, thereby, evidently showing that the desire of entering into married life results from a distinct and separate organ; and that, like all other feelings it may enter into an almost infinite variety of combinations, and thereby, is determined the particular motive for entering into married life. In proof that such an organ exists, I would ask, what further evidence need be required than that an individual, absolutely ignorant of the science of phrenology, when in the mesmeric trance, and the finger applied to the locality of this organ, should, first laugh, then give a most significant shake of the head—shrug up her shoulders—motion as placing a ring on what is commonly called the ring finger, then say, she was going to get married, and appear quite cheerful, in anticipation of the event; and all this, without a single leading

* I wish to be understood as not intending the least slight to the former talented Editor, but as bringing the present Editor into more intimate connection with the Journal.

question from myself, or any one else. And I beg to remind my readers that some half-dozen such cases can be adduced in favour of the opinion that this singular manifestation results from an organ appropriated to that particular feeling. There is one interesting feature, in the case of the female above alluded to, which is, that the organs can be excited when in the normal state, and several feelings produced in the mind, corresponding with the organ under excitement. And on the organ of matrimony being touched, she laughed, blushed, and turned her head away, but would not tell any one of what nature the feeling was, except privately to Mrs. H. I need scarcely say, 'she felt she wished to get married.' I wish it to be recollected that the motive to the act, is quite another, and totally distinct feeling.

Before closing the present letter, there is another subject, strongly bearing on the matter under consideration, to which I desire to draw your particular attention. Some phrenologists object to the correctness of phreno-mesmeric deductions, inasmuch as they conceive it to be impossible to excite one portion of the brain, and leave the other totally quiescent, and without producing a greater, or less amount of excitement, in the whole mass, and consequently, experimenters instead of eliciting a simple, uncompounded, elementary mental manifestation, produce what must be, more or less, a combination of several. This same difficulty having occurred to my own mind, I will admit it somewhat perplexed me, for a time, but on further consideration, I felt enabled to offer, what appeared to me somewhat like a rational explanation of it. This I could better illustrate by a diagram, but I shall endeavour to dispense with it. I have an opinion that, if ever the mode of anatomising the brain shall arrive at that degree of proficiency, it will be found, that there are small nervous fibres running from each of the organs, to others; some connecting them directly, and immediately with each other; and others, mediately or more indirectly. That this direct connection exists in nature, according to what particular kind of assistance each organ more immediately requires in the general business of life, seems very probable. Therefore, when it is recollected that this rule holds good with regard to each of the organs, that all have their appropriate number of nervous fibres diverging to their natural auxiliaries, it will be easily seen that the whole mass of the brain is, more, or less, directly connected with its several parts, and, consequently, may be excited, in some measure, by exciting only one part, or organ; but the impulse received by each organ, as it is transmitted from one terminus to another, becomes proportionately weaker, each successive time, and, as a consequence, the idea, feeling, or manifestation resulting from such secondary impulses must diminish in intensity, and become more feeble, in the same ratio. This cannot be better explained than by taking a case in illustration. We will, therefore, instance, philo-progenitiveness which, when excited in a mesmeric subject, presents to the mind the idea of a child, and the individual commences the evolutions of nursing. Now it may be asked, can the idea of a child be presented to the mind, independent of its natural attributes of form, size, colour, weight, individuality, or without exciting their appropriate organs? I should say certainly not. But as the impulses received by these organs are only secondary, the ideas resulting from their activity must be proportionately weak, and indistinct. But by applying the exciting medium to any one of these organs, you then increase the intensity of that particular mental feeling, and so of all the rest. So that you may so vary your combinations as to make the child appear anything and everything. But, in all this, it should be recollected, that it does not in the least degree militate against the value of phreno-mesmerism, or the correctness of the deductions made therefrom. For as in painting, the most prominent figures in the foreground are not mistaken for something different to what they really are, because of being surrounded by subordinate figures, dimly visible in the back ground, every experienced phrenological experimenter in mesmerism is competent to analize every compound mental manifestation, to ascertain its component parts, and thereby discover any new element that may have entered into combination. Sir, I have been induced to trouble you with these remarks, as I humbly conceive, that the position of the "People's Phrenological Journal," relative to mesmero-phrenology, calls for some such, in the hope that phrenology may not be deprived of the powerful assistance of mesmerism, and the valuable help of the "People's Phrenological Journal."

I remain, Sir,
Yours, very respectfully,
ROBERT JONES.

[There are many points in the theories of our correspondent, as expressed in the above letter, with which we greatly differ, but we cannot stay to discuss them now. We are glad to find him declaring against the *negative* organs. From our remarks in another portion of the present number, he will find that we have no idea of interfering with phreno-mesmeric discussions or statements of facts.]—ED.

To the Editor of the People's Phrenological Journal.

DEAR SIR,—Many thanks for the series of your interesting periodical; I have found in its pages much statistical information, which will always serve as a record of the progress of phrenology and mesmerism in Great Britain. The specific object of this note is to correct some important mistakes which from time to time appeared in reference to myself. In the last August number, page 280, it appears, that I have discovered *two hundred* new organs, through the agency of mesmerism! Since the year 1839, I have been engaged in making experiments in phreno-mesmerism, but have *never* announced the discovery of a single phrenological organ by the aid of mesmerism. Let it also be understood, that I do not sanction the numberless *new* discoveries made by the *modern philosophers*.

I am sorry to find, that many of your correspondents, who pride themselves on their *qualifications*, should have so far forgotten themselves, in denouncing all persons who differ from them as '*deluded, or imposters.*' Mesmerists require the same tolerance, which phrenologists claim for themselves, and as a defender of the reality of the mesmeric phenomena, I could not enter the arena, with any individual, who has in any way denounced, in wholesale terms, a subject with which it is evident, he is unacquainted even in its first principles.

I have the honor to be, yours, &c.

ROBT. H. COLLYER.

London, Nov. 22, 1843.

[The error here alluded to appears in a report of the meeting of the Phrenological Association. The report is in several respects inaccurate, as appears by a reference to Dr. Elliotson's paper, published in the last number of the "Zoist." The circumstances of Dr. Collyer's discovery are there given, as explained in his own pamphlet.]—ED.

To the Editor of the People's Phrenological Journal.

"Quodcunque utile, omnibus notum esse debet."

SIR,—If mesmerism, or, rather animal magnetism, requires any additional support, to prove to the sceptic its truth, perhaps the following case may not be without its value.

It may perhaps appear to you, who are doubtless aware of cases more remarkable, to be nothing very much above the average—but, to me, a mere tyro, it has all the charm of novelty, and from the tie of consanguinity, acquires a degree of interest, I can scarcely express.

To be brief—my father—Mr. Marshall Purland, 61, Crown-street, Finsbury-square, was some eight month's since, seized with a fit in Finsbury-square; he fell, and dreadfully lacerated the scalp; he was conveyed home—the best medical advice obtained, and in a few days recovered sufficiently to attend to his profession, that of a Dentist; but, from his first seizure, scarce a day has passed without repeated attacks, sometimes *twenty* a day. Turning sharp round—rising quickly—or any sudden movement would bring on the dreadful, but indescribable sensation. Even while at dinner, it has occurred more than once or twice. Some little time since, on his leaving my house with a friend, he fell near my door, and was brought back deluged in blood, from falling upon the pavement. Image, if you can, our feeling, in the midst of this state of things!—The fears for his safety, if he ventured out alone, which his duties as a parochial officer repeatedly required; even the post-man's knock was distressing.

Finding little or no relief from medicine, I proposed mesmerism; it was acceeded to, tried, and succeeded! From that time, November 12, not the slightest return has been felt. And this was effected by merely entrancing the patient, keeping him quiet about twenty minutes, and then awakening him.

If you think this at all interesting or useful, you are at perfect liberty to make use of it.

I have the honor to be, Sir,
Your obedient servant, T. PURLAND.

59, *Mortimer Street, Cavendish Square, November* 22, 1843.

P.S.—My father's age is sixty-five.

[This case is one of an important series of facts—mysterious, and at present, incomprehensible no doubt, but still facts. They are fortunately multiplying before our eyes, and it will not be long possible for the most sceptical to resist their influence. Let it be granted that this is a case of delusion, as far as the mesmerism is concerned; that imagination has done all—what then? Here is a person freed from a most distressing malady. That is no delusion. The means resorted to, are most simple and easy of application: if by their use we can so beneficially affect the minds and bodies of others, it is the least we can do to accept of them with thankfulness. To neglect or despise them, because we cannot understand how their effects are produced, does not appear to be any great display of common sense.

We are happy to receive cases of this kind. It is impossible for a benevolent mind not to sympathize with the joy of a son who has been enabled to confer such a benefit on a parent, in a case so seemingly hopeless.]—ED.

TO CORRESPONDENTS.

Felix.—The tenth part completes the first volume. Vol. 2nd, commences with the new series. An Index will soon be published for the 1st Vol.

J. S. S.—This gentleman's suggestions shall be attended to.

T. S. Merryweather.—Mr. Merryweather's communication has been received, and will appear in our next. Would Mr. M. inform us where we may address to him.

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A COMPLETE SYSTEM OF PHRENOLOGY.

Hope—(*Continued.*)

It may seem incredible, but that phrenology shews that great mathematical skill is not of necessity accompanied by sound judgment. The Abbe Gregory, whose labours are so well known, had this organ very prominent in his head, and, in fact, in all his enterprizes, he was never forsaken by hope. In this case, it was combined with powerful intellect, and all the superior sentiments. It appears large in Napoleon, who had great reliance on the future. In most criminal heads it is depressed, and the general characteristics of such individuals are in accordance. As before remarked, in low organizations, the whole of the lateral portions of the coronal region will be found but little developed.

Animals.—There are but few who at all recognize the existence of this faculty in the brute creation. If there are any feelings peculiar to man, they certainly are three of those contained in the progressive group of organs—hope, wonder, and ideality. Some naturalists assert that the dog manifests the feeling, when looking with an anxious eye for his master to take him his accustomed walk; but we think this may be referred to the desire resulting from other faculties.

Natural Language.—This organ being active, the head is a little elevated, the eyes looking up, and rather on one side, the arms extended upwards and forwards, the whole of the muscles partially relaxed; the features are lighted up with a more than usual fire and expression, the eye sparkles, the face is flushed, the voice soft and impressive, and the mouth a little open. These distinguishing traits are very beautifully displayed in many of the works of art (sculpture and painting) illustrating this sentiment.

Wonder.

The next organ in the group which directly produces elevation of the human character, is now generally recognised by the name we have placed it under. It is numbered 18 on the marked busts; on the busts of Dr. Gall, the space now indicated as the seat of this organ is left blank. The Doctor observes in his work, that many persons believe themselves to be visited by apparitions of persons who are dead and absent; and he asks, how does it happen, that men of good intellectual power believe in ghosts and visions? Are they fools, or impostors? Or is there some part of the organization which imposes in this form on the human understanding? How are such illusions to be explained? He then enters into a consideration of those cases in which individuals have seen visions. We shall refer to the most interesting of them when quoting examples illustrative of this faculty. Dr. Gall observed, in a fanatic, whose head he examined, a considerable development of the portion of the brain lying between the organs of ideality and imitation,—and subsequently he met with many similar instances. He met with one who believed that Jesus Christ, surrounded with a brilliant light, equal to the splendour of a million suns, had appeared to him, to reveal the true religion. Dr. Spurzheim, in his recent work, ("Phrenology,") observes,—"There is still a sentiment which exerts a very great influence over religious conceptions, and which, in my opinion, contributes more than veneration to religious faith. To some persons everything appears natural and in accordance with the laws of creation; while others are delighted with fictions, tales of wonder, and miraculous occurrences. They find in every passing event, extraordinary and wonder-

ful circumstances; and are constantly searching after whatever can excite admiration and astonishment. This sentiment is to be observed among mankind at large—both among savages and civilized nations. In every age, and under every sky, man has been guided and led by his credulity and superstition. The founders of all nations have had a fabulous origin ascribed to them; and, in all countries, miraculous traditions and marvellous stories occur in ample abundance. There are many disposed to believe in dreams, sorcery, magic, astrology, in the mystic influence of spirits and angels, in the power of the devil, in second sight, and in miracles, and incomprehensible representations of all sorts. Some, also, are disposed to have visions, and to see ghosts, demons, and phantoms. This sentiment gains credence to the true and false prophets, and aids superstition,—but is, also, essential to faith and refined religion. It is more or less active, not only in different individuals, but, also, in whole nations. Its functions are often disordered,—constituting one species of insanity.

The legislators of antiquity, aware of the existence of this faculty, made frequent use of it to enforce and confirm their laws. They spoke in the name of God, of angels, of supernatural powers. In our days the religious sects of Swedenborgians, methodists, quakers, and many others, particularly demonstrate its influence and presence. In dramatic representations, the introduction of ghosts, angels, transformations, and supernatural events, proclaims its activity, both in the author, and the public—by whom such exhibitions are relished and sought after."

Situation.—Immediately above ideality, in the front of hope; laterally beyond imitation. It is in the lateral region of the vertex, and when large gives a continued squareness to the top of the forehead, before passing round towards the lateral region.*

Primitive Functions. A tendency to believe in the wonderful, the supernatural, or the marvellous: a desire for what is new, grand, and extraordinary.

Auxiliary Faculties.—The most decided auxiliary faculties are those of hope and ideality. When this combination occurs, it is most unfortunate for the individual. It forms the gambler,—the everlasting dreamer, who is always building castles in the air—their lives are passed, as it were in one continued dream, in the pursuit of chimeras, to the neglect of what is present, and necessary, even, to their existence. Language, music, and the perceptive faculties aid this feeling, with all the pleasing and gentle emotions of which our nature is susceptible. Veneration likewise excites, and very frequently combines with this power.

Antagonist Faculties.—The most important in this category is cautiousness:—it restrains the manifestations of all the faculties till reason has enlightened them. Thus powerful reflection, combined with cautiousness, must be relied on to restrain and direct this feeling. The perceptive faculties, when combined, will aid to counteract the abuse of wonder, by giving their power in inducing the liking for facts, and demonstration in general. The intellectual powers, properly directed to the study of the laws of nature, must alone be looked to, as a remedy for the abuses which have spread, in all ages and countries, from the ignorance of the people, and the unrestrained influence of the organ of wonder.

Manifestations.—The activity of this organ may be observed in all those who believe in miracles, witchcraft, magic, demons, fairies, and familiars. The "Arabian Nights' Entertainments" is, more than any other work, specially addressed to the love of the wonderful. The general activity of this faculty accounts for the immense popularity of the work in all countries. The gratification of this feelng affords the highest pleasure,—but it may be called unreasonable,—for it is evident reason can have no share in the enjoyments which result from the imagining and admiring extraordinary things, so as to manifest enthusiasm in recounting or listening to them. A familiar illustration of the activity of this faculty may be noticed in the tendency some persons have to be astonished;—they express wonder and surprise at things of the most ordinary kind—exclaiming if a friend is met by chance, "God bless me, who'd have thought; well, who would have believed it possible;" or such like expressions,—while surprise and astonishment will be depicted in their face and whole demeanour. As well as being astonished at every thing, some persons will laugh or dream at anything,—but all these manifestations result from ignorance, and are in relation to this organ, which is indeed one of the most singular of the faculties of man.

It is very active in children. Nothing is more remarkable in this age than the pleasure which is derived from delusions. Unfortunately it does not terminate with childhood,—a majority of men are governed by delusions, and women too. Its use is to urge us on to discover what is not known or understood; hence the wisdom of its early activity, when all knowledge is to be acquired, and the necessity of limiting by reason the sphere of its action. Its manifestations may be observed in the early apostles of religion, and in all victims of superstitious beliefs. The founders of all religions and states have made use of this organ in their followers, too often to subjugate them for their own interests. The whole host of images, ceremonies, and theatrical displays in churches, courts, &c., were devised to excite the passions of the many,—and perhaps it was the only means by which they could be governed,—but it is lamentable to see, that even in the present day, how a whole people will rush to hear a discourse which inflames their passions, while a sound philosophic reasoner will be neglected—the many still being unable to estimate what reason dictates.

(To be Continued.)

* A correct idea of the situation and appearance of this organ may be formed by examining the portraits of the remarkable saints—enthusiasts who have been subject to extasies, visions, &c.; and poets who have delighted in describing the marvellous and supernatural.

On the Influence of "Education and Circumstances" in modifying character and organization. (*Continued from page* 22.)

BY THE EDITOR.

[In our former argument, we intended to have introduced the following passage from Dr. Pritchard's Researches,* but could not at the moment, recollect the part of the work in which we had read it. Speaking of the perfection of the physical senses in the Kalmuks, he says, "But nothing is more admirable than the excellence of their sight, and the extraordinary distance at which, from a moderate elevation, the greater part of the Kalmuks can discover upon the plain step, the smallest objects,—the dust caused by a drove of cattle, or a body of cavalry, notwithstanding the difficulties which occur during the summer, the peculiar undulations of the surface of the ground, and the vapours which arise from it into a pure atmosphere, during the great heats of these countries. In the expedition, which Oubachi, Vice-Khan of the Torgots, made against the people, dwelling below Kouban, the Kalmuk army would certainly have missed the enemy, had it not been for a Kalmuk of the common class, who, whilst he was feeding the horses, discovered from a moderately elevated position, at the distance of thirty versts, the smoke and dust of the enemy's army. He pointed it out immediately to those, not less accustomed than himself, whilst Colonel Kildimskoi, even by the assistance of a telescope, could perceive nothing."—Will it be for a moment contended, that the eye of this Kalmuc reached farther than the telescope of Colonel Kildimskoi? Such an assertion would be altogether preposterous. It must be evident, that the superiority lay in the skill of the Kalmuk, which enabled him to discriminate between different faint appearances, and ascertain their causes. The peculiar and barely perceptible thickening, or haziness of the atmosphere, at a certain point, which revealed to his experience, a distant army, was but little affected by the magnifying powers of the telescope. Had the object observed been a solid body, then, indeed, it might fairly be said, that the Kalmuk had marvellous powers of vision, or Colonel Kildimskoi, a wretched telescope.]

The next subject which will claim our attention is, the *sense of hearing.* We presume, no one will question, that this sense soon arrives at the utmost perfection that it *usually* attains to. We are not aware that children of five or six years of age, or much younger even, display the least inferiority to adults in general, in their powers of hearing. Whether some few adults, who have exercised this sense, have increased power, is another matter; but we see no evidence whatever, to lead to the inference that its continued exercise in any of the ordinary modes, has ever been productive of the least improvement. Whatever has been said in reference to sight, is thus far, at least, entirely applicable to hearing. Let us see, whether the analogy holds throughout.

* Researches into the Physical History of Mankind. Vol. i. p. 265, 3rd Edition.

We are told, very confidently, that when nature deprives us of one sense, she gives us a compensation in the increased power which she bestows upon some other, and that, for instance, the deprivation of the blessings of sight is usually accompanied by an extraordinary acuteness in the sense of hearing, and sometimes, also, in that of touch. It may be so, but still these announcements are not always true; and therefore, it is worth while to examine the matter. That blind persons have, in general, unusual readiness in discriminating sounds—we shall treat of touch by and by—is a fact that cannot be questioned. But the point to be determined is, whether or not, this depends on an actual increase in the power of mere hearing, or upon attention, memory, and reasoning, as already explained in the case of sight. The fact of blind men receiving more information through the medium of hearing than others do, proves nothing in regard to their power of hearing. Before increase in this respect could be legitimately assumed, direct and careful experiment would be required; especially as the phenomena observed, are so completely explicable on the principles already alluded to. Some such experiment as the following, for instance, would be necessary. Let several persons of good powers of hearing, together with one or more of these blind men, be placed in an open plain, in a still night, and let a bell, or any musical instrument be sounded at a distance, taking care to give a single note only. Most probably, the hearing of the blind would reach a little farther than that of the others, from their habit of attending so much to minute sounds; but, in the absence of direct proof to the contrary, we cannot believe, that any difference worth mentioning, would be observed. Were the object to distinguish mere noises at a distance, especially if it were not previously known what kind of noises were to be made, there is little doubt, that the blind would far excel the others in apparent power, from their habits of attention and their practice in discrimination. But the detection of a single pure sound would be the only real test of power. An experiment of this kind would be worth trying. Deception, voluntary, or involuntary, might be prevented by having a musical instrument—leaving the parties ignorant as to the notes that would be struck—and requiring them to name the note, when they fancied they heard one. In this case the parties must of course be practiced musicians. In the absence of such tests, however, reasonings upon what we do know, may settle this point quite satisfactorily to all, but those who happen to have a special antipathy to being disturbed in their theories; and who will grasp at shadows even, if they seem to favour them, while they close their eyes to sheer realities.

In the first place, has any one ever noticed a progressive increase in the power of hearing of blind persons, as they advance in age? Is this power feebler in a blind boy of fourteen or fifteen, than in a blind man of forty or fifty? We have never heard of anything that would justify

an answer in the affirmative. The boy might display less discrimination and skill, in certain cases, in which practice and judgment were both material, but we see no evidence, whatever, to justify the assertion of inferiority in his powers of *mere hearing*. And yet, if exercise increases the natural power of the senses, there ought to be unequivocal evidences of inferiority. And the argument applies equally to those who are not blind. If exercise is naturally calculated to increase organic development, it is wholly inconceivable how persons at middle life give no evidences of greater power in the senses of hearing or seeing than those who are young. Indeed, whatever differences we do occasionally notice between these classes, are all in favour of the young. We are told by phrenologists, and told most positively, that if we exercise a cerebral organ—that of conscientiousness, for example—it will *grow*. This is perhaps the universal opinion of phrenologists. We do not remember ever to have heard an opposite one announced by them. It is, we believe, the universal opinion of physiologists, as well as of the masses of men, that exercise does tend to increase organic development. As far as we can detect, this has been received as a settled point: and yet, if it be true, why have we not evidences of it in the case of these senses? We hear a good deal about the increase of size in the arms of the blacksmith and the legs of the opera dancer; but shall we not hesitate about these apparent facts, while there are so many unquestionable ones of an opposite tendency before us? We shall examine these when we come to treat of muscular exercise, and we shall find all the difficulties which they seem to involve vanish most easily. We will, however, at present, make a few remarks on the question of cerebral development. The organ of conscientiousness is of moderate size; if we exercise it judiciously, it will, we are assured, grow. Now, can we exercise such an organ as much as one of the senses? Impossible. The most conscientious man does not exercise this organ a hundredth part as much as his eye or his ear. Why then should there be increased development, or increased power, in the one case, when there is none in the other? Is it that the senses are too much exercised,—that, as over exercise checks, or even diminishes muscular development, so the senses by the excessive employment they receive are kept from increasing? This will not do. When there is muscular weakening, or wasting, &c., exercise is habitually pushed far beyond the point of fatigue. This pain of fatigue is the unerring intimation which nature gives of exercise having exceeded appropriate bounds, for the time being. Nobody dreams of considering any exercise weakening, while there is no fatigue. Now every one knows that, as a general rule, the senses are not fatigued by their daily exercise. They have been constructed to bear the amount of exercise they habitually receive. It is only very unusual exercise that is at all accompanied with any pain. In regard to hearing especially, we hardly ever find persons complaining of its being too much exercised, unless they are nervous or otherwise delicate in health. Besides this argument will not do at all, since it is the very reverse of what is applied in the case of the blind. If those who see, exercise their hearing too much, how much more must those who are blind do so! And yet it is to this over exercise, that they are said to owe their supposed increase of power. But still it will be said, this increase in cerebral development is a matter of fact. We shall fully examine these facts hereafter. They are far less numerous and less striking than is imagined. The cases in which there really is a visible increase in size are easily explained. They furnish irresistible evidence against the theory in whose support they are advanced. We now return to our main argument.

Every one knows that though a vast number of things may be perceived at once, a very small portion of them only can be perceived with *attention;* and that many things perfectly perceptible when attended to, remain as far as our consciousness is concerned, wholly unperceived, when the mind is occupied with other matters; though there can be no doubt, that such things have made their legitimate impression on the organs of sense. Now it must be obvious, that a blind man is more favourably circumstanced for exercising to the full his powers of hearing, than one who possesses the faculty of sight. While external nature is pouring in, on the mind of him who sees, a thousand vivid images in succession, each calculated to direct attention from sounds of little force and less interest, the blind man is in a manner cut off from the external world, and in the best possible condition for catching the faintest sounds around him. The positions of the two are therefore most unequal. The blind man ought to notice a thousand sounds that are quite lost upon the more engrossed attention of the other. But this is not all. It seems certain, that attention, by some process or other, renders the organ to which it is directed, for the time, more impressible—more sensitive. But whether the effect be produced on the organ in question, or on the source of consciousness, whatever that be, there is no doubt that the mind is vastly more impressible and sensitive in the direction in which attention happens to be exercised, than in any other. Now there is always a tendency to have this exercised in the direction of our interest. A man who can see is comparatively independent of his powers of hearing. It is only now and then that it is to his interest to exercise this sense. But to the blind man it is his chief source of information. It is the only thing that can warn him of distant danger, or announce to him distant pleasure. It is perpetually his interest to be alive to every sound. By attending to the most minute variations of sound he receives valuable information. The other receives this information in a far superior mode, and with infinitely less exertion of reason or attention; he can afford, therefore, to neglect the minutiæ of sound, but it does not thence follow that he has inferior power. For instance, let a blind man and one who sees be

placed in the following circumstances. There is a house which has the reputation of being haunted. The blind man has not a particle of faith in ghosts, and is withal a brave, calm, and self-possessed person. The man with good eyes has also some courage, but not quite so much as he fancies, or would have believed; he has besides some faith in ghosts, though he does not see sufficient reason for believing that there is one in the case in question. Well, it happens that the blind man lives in this house, and that his servants have in vain endeavoured to alarm him with reports of what they have seen and heard. His friend, who is not a little of a boaster, engages to spend a night with him, and set all to rights. He does so. They remain up. The rest of the household are trembling in their beds. The hour of midnight approaches; and the courage of our hero diminishes in proportion, till he is at last left a prey to all the anxieties of superstitious dread. We ask which of these two men has the acutest hearing on that night, the blind man who sits happily enjoying his cigar or his wine, or the other who trembles at the faintest breathing of the wind, and expects at each creak of the door to see it open and disclose some terrific apparition? There can, we fancy, be but one answer to this question. Our readers will readily admit that the sound which will hardly break the pleasant reverie of the one, may be thunder to the ear of the other.

There does not then appear to be any real grounds for the opinion that the hearing of the blind is organically superior to that of other persons, but merely that the necessity of their position compels them to draw forth to the utmost the natural capabilities of this sense. On the other hand, the admission of this opinion would lead to a multitude of consequences evidently false. The assertion that nature compensates for the loss of one sense by bestowing increased power on one or more of the others, is further contradicted in the cases of taste, odour, and sight. Many persons are more or less deficient, some entirely so, in the sense of smelling, but we never heard that their taste or any other of their senses was thereby improved. The same may be said of taste and sight. We have never heard that the deaf and dumb had better sight than other people—so that at the utmost, there are only two senses out of the five that can be said to be even apparently improved, by the loss of other senses, viz.: hearing and touch.

But there is a case peculiarly apposite, which shews at once the real source of the fancied improvement we are speaking of. It is well known that some deaf and dumb persons are able to follow a conversation by watching the motions of the lips of the speaker. They thus detect the various articulations, and actually spell his words from his lips. Why do we not attribute this to a superior power of vision? Simply, because we know from a variety of other facts that these persons have no such power. But yet this is quite as great a feat—indeed much greater, than what is related of Indians in respect to their skill in detecting the trails of their enemies, &c. Both equally depend upon the observation of the minutest shades of variation—variations invisible—to all intents and purposes, to unpracticed eyes. Both are evidently cases, not of improved vision but of reiterated and attentive observation, association, memory, and reasoning—cases of superior skill, not of greater organic power. It is precisely the same with the hearing of the blind.

Thus, then, it appears that in regard to two of the most important of the senses, man possesses no means of increasing the measure of power which nature has primarily bestowed upon them. The perfection of these senses may vary in races as well as in individuals, but this variation depends upon original formation, not upon exercise or education.

INSANITY.

Insanity is manifested in different degrees, according to the extent of disease or injury in the encephalon,—an over quantity of blood to the cerebral mass, causing inflammation or encephalitis, will produce a derangement of the functions of the brain. On dissection, the various tissues or membranes enveloping and protecting the mass are generally found to be considerably increased in their vascularity, and often the delicate arachnoid matter, which in a natural state is so similar on account of its fineness to the web of the arachnoides or spiders, is found to have acquired a remarkable degree of thickness and density. Between these membranes in the ventricles, and even in the substance of the brain, there is often found a quantity of serum or blood—the amount of which varies, often exceeding seven or eight ounces. But besides this pathological circumstance, the substance of the brain is also found with considerable alterations; the derangement, however, which is here remarked, seems to be only in the cortical substance, the medullary retaining a healthy and sound appearance; so that although man is gifted with a larger share of this nervous element, we find also, he is liable to evil, resulting from its derangement—often it must be admitted, brought on by his own injudicious course of action, by the undue exercise of his mental faculties. Animals lower in the scale of nature—lower in a mental point of view, are, to a certain extent, free from this deplorable calamity, with which the family of man is occasionally oppressed. This can easily be accounted for, by the same argument that proves the cortical substance to be the seat of the mental energy. It is known that as this substance is found to vary, so also is the intellectual power in its degrees of energy—thus showing that man possesses an element (the manifestation of which is the mind) far superior to other animals; and as insanity is a disease of the mental element, how can we expect a frequency of a diseased mind, where the animal to a certain extent is deficient of the element which constitutes that mind? The cortical, in the first place, seems to lose its natural firmness; softening does not, in general, extend over the whole cerebral surface, but is found only par-

tially so; and it might be considered as an established fact, that "the alterations of the brain are general, when the derangement is general, whereas they are confined to a circumscribed space, when a single propensity for instance, presents morbid manifestations.* Besides this remarkable change in the consistence, we find an alteration equally as great with respect to the colour of the cortical—often presenting a rosy-violet or blue tint, whereas in a healthy brain it has a brownish white colour. These perhaps, are some of the most striking morbid appearances observable on an examination of diseased brains. Thus then, apoplexy, paralysis, or insanity, may be caused by wounds, compressions, effusions of pus, serum, blood, or by the softening or hardening of the cortical substance of the encephalon.

It is by no means uncommon to find insanity combined with paralysis; the unfortunate inhabitants of a mad-house present innumerable pictures of the horrors to which human nature is subject; in some instances their speech is inarticulate and unintelligible, their frames emaciated, their limbs distorted, their spines contracted, and incurable, presenting a spectacle of human imbecility of mind and body, far surpassing the powers of description; it requires but one visit to a mad-house, and the scene will never be forgotten. Such are the beings, the most pitiable species of humanity, who have for a considerable length of time been treated by their fellow-creatures, with a degree of severity, which only ought to have been used in cases of incorrigible crime, certainly not to a diseased and disordered fellow-creature. But thanks to phrenology, the barbarous treatment of an ignorant age—ignorant of the nature of the human mind, is now partially, and is likely to be totally eradicated. Doubtless it is justice to confine and protect those afflicted beings who have not power or control over their passions and propensities, because in so doing, it restrains their disease, and protects the community at large; but is it just, that a being whose misfortunes ought to excite our sympathy and compassion, should be immured within the dark and dismal walls of a mad-house, shut out from the light of the world, and deprived of those passing rays of solace which might perhaps tend to alleviate the insurportable misery of insanity?

Intimately connected with the present subject is that of capital punishments. It must be evident to every reflecting mind, that the destruction of a human being must result either from a bad or diseased organization, and, as in the first case, we cannot blame a man for his cerebral organization, we have no legitimate right to inflict upon him the punishment of death. It is true, that had the phrenological character of the individual been attended to in youth, and trained and educated accordingly, the evil might have been averted; but in this point of view, the blame originates more from the bad system of society, than from the individual himself. In the second place, it would be unjust, and against all laws of nature and benevolence to treat the actions of an individual labouring under the effects of a diseased brain as criminal; and yet how many have died sacrifices to the shrine of ignorance!—and now, even, when the sublime truths of phrenological science, have shone with resplendent lustre through the dense clouds of metaphysical ignorance, the legislature still goes on adding sacrifice to sacrifice, crime to crime, and morally speaking, murder to murder! Who with the least spark of humanity can read the horrifying accounts of homicide, infanticide and suicide, which are almost daily perpetrated, and still support a system (by clamouring against its antidote) which, instead of endeavouring to effect a cure of the disease, consigns its unfortunate victim to the gibbet? It appears that a correct knowledge of cerebral physiology, based upon true phrenological principles, is the only means by which a correct treatment of the insane will be generally practiced; and, consequently, as every fact and circumstance which adds to our knowledge on the subject is of importance, the following may be of interest. Georget says, "Sometimes the action of the cause is strong and rapid; at other times, more moderate and slow. In the first case, madness breaks out at the end of some hours, or some days, after a state of anxiety and uneasiness, with headache, sleeplessness, agitation or depression, and threatening of cerebral congestion—the patient begins to babble, cry, sing, and becomes agitated and wild. He is then often taken for a person in a state of intoxication, and the mistake becomes apparent only after examining the previous circumstance, and the duration of the malady. In the other case, thought only becomes affected gradually, and often very slowly; the patient is generally conscious of some disorder in his intellectual faculties; he is beset by new and odd notions, and by unusual inclinations; he feels himself changing in his affections, but at the same time he preserves a consciousness of his condition, is vexed at it, and tries to conceal it—he continues his occupations as much as he can; and lastly, as many people do in the first stage of it, he makes every effort to appear reasonable." This undecided state, however, does not last long, but quickly assumes an aspect of a more certain and malignant form; he often becomes impatient and irritable, and highly susceptible of offence. When the organ of cautiousness is deranged, he is in constant fear of some unknown enemy, who he thinks is plotting against his life and happiness,—thus he not only becomes the victim of a disease, but also the slave of fear, suspicion, and mistrust. This state, however, is not constant, for lucid intervals occasionally or periodically take place, and for a short time they enjoy the blessings of comparative reason. These short abatements of the reign of madness seem to cast a deeper gloom, and a more melancholy aspect on the succeeding tempest; but even in these intervals, they often manifest striking marks of eccentricity, and "however calm and rational the patient may be during the lucid intervals as they are called, and while enjoying the quietude of domestic society, or the limited range of a well regulated system, it must never be sup-

* M. Calmul, Dic. de Med. 2nde Edition, t. 2, p. 489.

posed that he is in as perfect possession of his senses as if he had never been ill:"* he should be watched, humoured, and by no means opposed or contradicted, for while in this state, they are so exceedingly susceptible, that it might cause an instant relapse. Particular care should also be observed in not alluding to any subject on which they are excitable: they will, often, from a comparatively sane condition burst out into a fearful paroxysm of rage. This derangement in particular organs of the mind is termed *partial mania*, or *monomania*. "The pious become impious; the content and happy, discontented and miserable: the prudent and economical, imprudent and ridiculously profuse; the liberal, penurious; and the sober, drunken."†

Patients thus affected are sane and perfectly rational on many subjects: at such times it would be impossible to tell that any thing was the matter—they "are capable of reasoning or supporting an argument on any subject within their sphere of knowledge that may be presented to them;"‡ but directly the diseased propensity is excited, they burst forth into a paroxysm of insanity, manifesting a local disease which, when in operation, destroys the legitimate action of the whole brain. One may be deranged in the organ of veneration, which will evince itself by the most extravagant superstition and fanaticism; often when combined with hope, producing the wildest and most chimerical fancies; and when deficient of that sentiment, the most melancholy despondency. Another, again, may be remarkable for his all ruling propensity to steal, pilfering any article that comes within his reach. Whether it is of value or not, is of no material consequence, so long as it satisfies the inward cravings of his diseased organization. Dr. Rush || relates a case of a woman who, "was exemplary in her obedience to every command of the moral law, except one; she could not refrain from stealing. What made this vice more remarkable was, that she was in easy circumstances, and not addicted to extravagance in anything. Such was the propensity to this vice, that when she could lay her hands on nothing more valuable, she would often at the table of a friend, fill her pockets secretly with bread!" Others again, may be affected in the organs of self-esteem or love of approbation, and many imagine themselves earthly or even divine monarchs. The latter organ was first noticed by Gall in an insane woman, who fancied herself Queen of France. I remember a case of an old man, an inhabitant of a lunatic asylum, near L—— who considered himself superior to any around him in power; he always wore a chain on his right foot, which he said possessed a talismanic virtue; he would vaunt and boast of his influence over the weather; he declared that at his bidding, it would rain on one side of the house, and not on the other; and by a peculiar delusion, he seemed to fancy his power was manifest to all. Some are remarkable for their cunning. I recollect a case of this nature combined with destructiveness. Being in a garden, with a friend, behind an asylum in Staffordshire, into which looked a grating belonging to the airing yard, our presence soon attracted the observation of one of its unfortunate inmates. He narrowly watched our movements, when seeing my friend take a watering-pot, he called loudly for water, for the want of which he declared himself to be dying. Moved by compassion, my friend approached, and put the spout of the can through the grating, holding it however fast, and as he considered secure. No sooner was the desired object within his reach, than it was forcibly snatched,—his face inflamed, and presenting a dreadful picture of malignant passion, with clenched fists, grinding teeth, and eyes flashing with the fire of a demon, he hurled it, with almost a supernatural violence, at the head of my friend. Fortunately however, he missed his aim. In some, this internal organic propensity to kill, is so strong, that the poor wretches have not the power to restrain it, and often the wife of their bosom, or the children of their affections, fall unhappy victims to its gratification. Gall relates a case of a woman, who had an almost irresistible desire to destroy herself, and to kill her husband and children, who were exceedingly dear to her. She shuddered with terror as she described the struggle that took place within her, between her sense of duty and of religion, and the impulse that urged her to this atrocious act. For a long time, she did not wash her youngest child, because an internal voice constantly said to her "let him sleep, let him sleep." Frequently she had hardly strength and time to throw away a knife which she was tempted to plunge into her own breast, and her children's. Whenever she entered the chamber of her children, or husband, and found them asleep, she was instantly possessed with the desire of killing them. Sometimes she precipitately shut the door of her chamber, and threw away the key, to remove the possibility of returning to them during the night, if she should fail to resist this infernal temptation."*

Georget† gives the case of a John Schmitt, a parricide, aged 17. It appeared that, from his infancy, he displayed the most horrible propensity to destroy. At one time, he endeavoured to murder his cousin, Anthony Littre. Having enticed him to the brink of a pool, Schmitt suddenly pushed him in—mocking him when he cried for assistance! He, however, got out, when Schmitt pretended it was all done in jest, and desired to know if the water had penetrated to the skin. Littre, to prove this, opened his waistcoat, when Schmitt, instantly plunged a knife into his breast; happily the wound was not mortal. During the night of the 17th of July, Schmitt's father was employed in boiling wood ashes, and at 4 o'clock in the morning, he called his son out of bed, to assist him in taking the vessel off the fire; young Schmitt came, and assisted his father in the operation; but while his father was stooping to do

* Dr. Combe's Observ. on Ment. Derangement p. 241.

† Dr. Burrows on Insanity.

‡ Gall, Op. cit. sup. p. 826.

|| Medical Inquiries and Observations, vol. i.

* Gall's Op. Cit. Sup, t. 4, p. 119.

† Discussions, Medico Legale sur la Folie.

something, he seized a hatchet and laid him insensible on the floor! He then ascended to the chamber, where his sister-in-law and her husband slept, and wounded the former dreadfully, by a cut of the same hatchet; this roused the whole family, and he was secured. The father was put to bed, where he almost instantly expired. When conducted to the bed, on which lay the corpse of his murdered father, he said, "Ah! my father, where are you now, and where shall I be soon. It was yourself, and my mother, who are the cause of this misfortune, and long ago did I predict this to you! If you had brought me up better, this would never have happened." Many witnesses proved, that at times, he exhibited the most profound sense of religion and piety. Who can read such cases as these, and deny the doctrine, that men are born with organic propensities? But although a talented defence was made on the plea of insanity by M. Vivier, he was found guilty and *condemned to death!* If proper education, founded on a phrenological basis, had been applied, doubtless, an enormous amount of evil would have been averted. In the first symptoms of this deplorable malady, he ought to have been placed under proper care and restriction. "Observe," says Georget, "in this wretched youth, the strange assemblage of religious and wicked propensities,—two kinds of sentiments, which would seem to repel each other, and the re-union of which in any one individual, would seem impossible, except in consequence of the *peculiar organization* of this young man's head. Observe the horrible acts which Schmitt committed without any ostensible motives, and at so tender an age,—consider the exclamation which he uttered on viewing the corpse of his father—the avowal that he made, that he was always haunted with the propensity to shed blood; contemplate the formation of his head, and you will be constrained to admit, that this youth was disgraced by the hands of nature from the moment of his birth, and that he brought into the world with him those vicious propensities, which had not been sufficiently counter-balanced by ideas of morality, justice, and the fear of punishment." Who can or will deny this, and argue that he was a sane and responsible individual? Instead of punishment from a tribunal of justice—his case ought to have called forth sympathy and commiseration. It is true, he would not have been a fit or proper person to let loose upon society, but, in confining him, the public safety would have been effectually secured. Space will not allow me to enumerate more cases, though numbers may be found which equally tend to prove, beyond a reasonable doubt, the truth of Gall's philosophy; but the few cases I have related are quite sufficient to show the nature of insanity. Considering then the cause, every philanthropic mind must denounce that law which inflicts punishment on the homicide—as a law fabricated in error, and causing under the sacred name of justice, the grossest evils of malignity and unkindness. It is true, in former times, when the true physiology of the mind was unknown—strange and superstitious ideas, where entertained with respect to insanity:—it originated from the same source as criminal transactions; it was the devil that tempted the homicide, and it was the 'evil one' that influenced the deeds, and impulses of the lunatic. The consequence was, they were treated in a manner the most cruel and revolting to humanity; they were loaded with chains, condemned to solitary confinement in the miserable cells of a loathsome mad-house, and constantly depressed and exasperated by the exhortation of some spiritual officer with the futile hope of "casting out" the infernal fiend who had taken up his abode in the mind of the unhappy lunatic. Such treatment, the worst that man could possibly devise, is undergoing, by the aid of phrenology, a speedy and rapid reform—their chains are broken, loneliness and seclusion is supplanted by amusement, recreation, and society. A visit now to an asylum, under a system similar to that at Hanwell, instead of filling the mind with horror, swells the heart with gratitude and admiration for a science, so noble and benevolent as phrenology has proved itself in the hands of Dr. Conally.

F. S. MERRYWEATHER.

THE PEOPLE'S PHRENOLOGICAL JOURNAL.

IN examining the religious systems of the more civilised portions of mankind, ancient and modern, we everywhere find the most evident traces of unity of origin in the higher portions of their theology. Certain great and profound truths, variously modified, meet us everywhere:—here, in naked simplicity, there clothed in allegory, or blended with the wildest superstitions. Sometimes the allegory is distinguished from the truth, sometimes substituted for it. And, again, these are made to interchange; truth being deemed allegory, and allegory truth. The further back we trace these opinions, the more do we find them approach to simplicity and truth. This is peculiarly obvious in the religious systems of Egypt, India, Persia, China, and Greece. In these cases, it clearly appears that truth was first, and that superstition and folly came afterwards. In other cases it is equally plain, that truth was a later introduction, engrafted with more or less success on primeval absurdities. It is with morality as with religion. The farther we go back towards the origin of things, in these ancient centres of civilization, the more pure and sublime it becomes, till at last we find enunciated, with the most unequivocal distinctness, all those maxims which, in these days, receive the assent, or excite the admiration, of the wise and good. The bloody rites of India were not received from

the founders of its ancient civilization. They arose when the sacred race mixed its blood with the wild warrior tribes whom it sought to civilize, or by whom it was conquered.

The mythologies of the nations we have alluded to, are all unanimous on one curious matter. All point back with undoubted confidence, enthusiasm, and regret, to a golden age, in which gods, or god-like men ruled, without war, or violence, or force, the mild, simple, and happy cultivators of the soil, and tenders of flocks. In those days there were no cities, no palaces, nor proud dwellings, nor splendour, nor any of the peculiarities of a complex civilization; but there were profound sages, spending their peaceful days in the contemplation and study of the wonders of nature, and in inculcating sublime lessons of religion and morality to the simple people, by whom they were justly looked up to with reverence and gratitude, as superior and sacred beings.

But things did not last thus, for there came men from distant parts, bringing new wares, and new wants, and gradually the blood of the shepherd, and the husbandman, mixed with that of the merchant. Then the thirst of gold arose, and wealth appeared, and there were cities, and ships, and commerce; and even the sage was infected with the change, and put on splendid robes, and received profuse offerings:—the *silver* age had commenced. Still there was peace and happiness, but the seeds of evil had been sown. Some portions of the lower races had been elevated, but deterioration had made its appearance among the higher.

As men became multiplied, distant races approximated, and presently warrior tribes were on the borders of this civilization, and beheld wealth and luxury in the hands of unwarlike men. Temptation was before them; reasons for gratifying it were not long wanting. Civilization became enveloped in the darkness of barbarism, and chaos long reigned. But the light was obscured, not extinct. These warrior tribes were noble, though uncultivated men; if they had impetuous passions, they had also lofty feelings, while wealth, and the contact with refinement, deprived them of their apparent rudeness, and invested them with a dignity that did not, at first, seem to belong to them. And the daughters of the sacred race looked upon them with favour and admiration, and disdained not the offer of their hands. And "the sons of God," also "looked upon the daughters of men," and saw that they were fair, and the races became mingled. Then sprung up new and stranger effects. These were the days of heroes, and conquerors, and men of renown. Wisdom and valour were blended, and all things became possible. Commerce returned, arts and sciences were extended, and out of the midst of conflicts, confusion, and devastation, arose a mightier, though less happy civilization than the old. The brazen and iron ages had come.

Such, in a few words, is a brief history of some, if not of most of the primary centres of civilization. Such the origin of their sacerdotal, and warrior aristocracies, their distinctions of rank, &c. Distinctions not founded, as has been supposed, by accident, or guile, or tyranny, or policy, or folly, but arising from the nature of things, from the contact and intermixture of races primarily separated, and differing in many essential peculiarities.*

There is another matter respecting which the ancient mythologies are equally agreed—the wars of the Gods and the Giants; in other words, of the sons of Heaven, and of the Titans born of the earth. Keeping before our eyes the ethnological doctrines announced in our former numbers, it seems impossible not to recognize in this fable, the shadowing forth of a most ancient and important human event, or rather series of events—the first conflicts of two great races differing in origin, in social condition, in moral, intellectual, and physical peculiarities. Throughout all antiquity, we behold the great intellectual, or sacerdotal race, everywhere assuming the designation of sacred, deriving its descent immediately from the gods, and regarding the rest of men as of inferior origin—earth-born as it were. Everything leads to the conclusion, that this race was not of large stature. It was not intended for drudgery of any kind, and therefore, a moderate height, a slight, graceful, but vigorous structure, was most suitable to it. Even in these days of intermixture, we seldom find the highest intellectuality accompanied with a large physical development. On the other hand, it is not less certain that there were other races, which, in comparison with this one, might be termed gigantic. Such were some of the Teutonic tribes, even at a comparatively recent period, when they had, probably, intermarried

* See the ethnological propositions in the last number of the Journal.

with smaller races, whom they had subdued. That they were then mixed is evident from the variations perceived in their hair. It is sometimes described as red, and sometimes as yellow, indicating the blending of white-haired and red-haired tribes. If we read the descriptions which the Roman writers give of the German tribes of their day, we see at once how easily a little superstition, and some distance in time, would convert them into giants, in the popular sense of the word. Even at the present day, when describing men larger than the common, we familiarly use such terms as immense, vast, extraordinary,—terms which would countenance, if not justify, any exaggerations of superstition, or marvellousness. Again: we find in our own times, that whoever contends with a religious body, fights, in the opinion of its members, with God himself. So natural does it seem for man to associate his own interests and opinions with those of the Deity. Thus the religious wars between different sects in ancient India are always spoken of, in their sacred books, as wars waged by the divinities themselves, who were respectively worshipped by these sects. In like manner when the Titans invaded the sacred race, they were, of course, impious mortals fighting against the Gods. Such expressions as these, the ordinary language of the time, furnished abundant materials for the fables we have spoken of. What was at first mere metaphor, became, to the superstition of a later day, literal truth, which poetry worked up into every phase of extravagance.

The sacred race has left abundant monuments of its existence in the mythologies, histories, languages, and poetry of different countries. Is it too much to say, that it has also transmitted to us, the actual name of its gigantic foes? Who were these Titans so dreaded for their energy, prowess, vast stature, and strength? This name and this fable would seem to have had their origin in Europe. The only races that can be considered to answer this description, whether in Europe, or elsewhere, are the German or *Teutonic* tribes, and in this latter name we seem to have the Titans or Tytans of the mythology.

The syllable *an*—or as it would have been anciently pronounced *aun*, is a mere termination, as such it is common in various languages:—we may mention the Celtic for instance, and the Arabic, which may be more or less traced in the dialects of Italy and Greece. The actual word therefore would be Tit, (pronounced Teet) a corruption, or modification of Teut, or Teuth. The Greeks and Latins were any thing but scrupulous in their treatment of foreign words. Tutaun and Teetaun are therefore infinitely nearer than whole hosts of words whose derivation is unquestionable. Now, Teuth, Tuatha, or Teuthan appears to have been one of the most ancient, if not the most ancient name of the true German race: the word German being among the most recent of the various names assumed by the different branches of the Teutonic stock.

There are many points at which the sacred race might have come in contact with the Teuthans, in very remote periods. In the British Isles, or Gaul, for instance, in Greece, or in ancient Prussia, where they had established a sacerdotal empire of no ordinary importance. In the time of Pliny, one of the Teutonic tribes still retaining the ancient name, and called by him Teutones, was placed in the north-west of Germany, in the neighbourhood of the German Ocean. But there is little doubt, that at a very remote period, these tribes had overrun Gaul and Spain, and also Italy and Greece. The Gauls who first invaded Rome were principally, at least, Germans not Gael. They seem to have constituted the military aristocracies among the Gaelic tribes, as the Druids did the sacerdotal ones. It is also probable that they were the Tuatha-de-Danaun who were among the early invaders of Ireland. The descriptions given of the Gauls by many writers, differs little from that given of the Germans, proving the early mixture of the two races; but nothing could be more distinct originally, than these races. The true Gael were of comparatively small stature, and dark hair, and such they are to the present day. But perhaps we shall be told that this fable relates to an anti-diluvial, not to a post-diluvial event. If so, the fact will only make a still more curious story.

However, in such a sketch as the present, it is not necessary to enter into a full argument upon any of these topics. Our object now is rather to familiarise our readers with these novel views, than to attempt a laboured demonstration. We shall return to them from time to time, and we have not the least doubt that many opinions which now appear fanciful in the extreme, will hereafter present a totally different aspect. While we retain the theory of the unity of the human race, ancient history is a riddle that never will be solved; and hardly less so is the science of human nature itself. On the other hand, it will

ere long be apparent that the theory of distinct races, such as it has been hinted at in the pages of this journal, is a spell which unlocks mysteries hitherto deemed inscrutable. Among other things, it shews us that there are valuable truths to be found, even amid the wildest fables of mythological history.

To eradicate an error, or establish a new truth, much more is required than merely to refute the one, or prove the other. Though the proof or refutation may be convincing at the time, yet if the new opinion be less agreeable than the old, the mind will be apt, insensibly, to fall back upon the latter, as the vividness of the argument fades upon the memory. New bearings of the subject, apparently not contemplated in that argument, will then present themselves, objections once overruled, will again start up and assume prominence, till at last the mind relapses into its old belief, or, at the best, remains in a state of doubt. It is, therefore, necessary to keep alive the impression once made, by occasional repetition, and by varying the argument, gradually embrace the different classes of objections that will occur to different orders of mind. If all this be necessary, even in cases where an argument has been complete and convincing, it is much more so where it has been imperfect, and calculated to produce a partial impression only. It is, for such reasons, that we take up again the question of *size of forehead* as connected with talent. We do so the more willingly as we believe some of the opinions we have already announced, have been more or less misunderstood by some parties.

Phrenologists have, hitherto, attached more importance to a large development of the intellectual organs, than experience justifies. It has been the fashion to assume, that their opinions on this, and most other matters, are altogether the results of pure induction, while in point of fact, there has been a very liberal amount of theorizing, and generalization, in the case. Fortunately, there are some propositions which a single fact may refute, or establish; and as some of the opinions we are about to contest, are of this kind, the candid and intelligent reader will not have much difficulty in making up his mind as to what he should embrace or reject.

Phrenologists have by no means asserted that great talent is the invariable accompaniment of a large developement of the intellectual organs; but they have asserted, and, as far as we know, universally maintained, that such development is absolutely indispensable to the manifestation of great talent—that, though not the only requisite, it is one which cannot be dispensed with. And not only have they announced, and acted upon this opinion, but it was unavoidable for them so to do, as it is a necessary consequence of their views of the functions of these organs. Now it is obvious, that if we can find a single instance, in which great talent was manifested in connection with a moderate or small forehead, that this opinion must be false. *There are numberless instances of the kind.* Talent may be general or partial. Where it is general, phrenologists require that all, or almost all the intellectual organs should be largely developed. Where it is partial, they require that at least the organs specially concerned, should be large. Now great talent of various grades has been found when none of these conditions have been complied with. If these cases have not been previously observed by phrenologists, it is not for want of being sufficiently numerous and obvious: but rather from the influence which an erroneous opinion has exercised over some persons, and the insufficient practical experience of others. But whatever may have prevented these facts from obtaining the attention they ought to have received, their existence cannot be fairly called in question. We ask for instance, was not Sir Isaac Newton a man, not merely of great, but of extraordinary talent? The intellectual world has long since answered this question. It is not in the power of phrenologists to supersede its verdict. But yet Sir Isaac Newton had a decidedly small forehead; not small in a few organs only, and large in others, but small generally, and smallest in the region that would be least expected to be small—that of the reflective faculties. It is a singular fact, that in phrenological writings we seldom or ever meet with allusions to such cases as this. This omission is not creditable to us. These are the very cases that ought to have been sought out, brought prominently forward, sifted, and criticised. How is the exact truth ever to be reached, if we give only those cases which evidently bear one way, altogether omitting those that appear equivocal or conflicting? We meet at every turn with the heads of Franklin, and Lord Bacon, and often indeed find them with foreheads grossly exaggerated: but a host of contrary facts might have been collected, by this time, had they been sought for with a small portion only of the ardour with which such as

these have been hunted up. No one, of course, will think of disputing the genius of Lord Bacon, but tens of thousands of men may be met with, at the present day, with foreheads quite as fine as his, who have no genius at all. Franklin too was a great man, but who, except a phrenologist, would think of comparing him with Sir Isaac Newton. What has he done, comparatively speaking? He was a man of a sound and practical mind, of scientific habits, and much aptitude for business, and his great energy of character gave the utmost prominence to all the talent he possessed, which, in certain directions, was great, but not extraordinary. He was a *beau ideal* of *common sense*, a quality often displayed in conjunction with very moderate talent. But Sir Isaac Newton was one of the most remarkable men not merely of his time, but of all times: a man of the loftiest genius, and of the profoundest views, one of the greatest discoverers, in matters in which discoveries are most difficult. And yet phrenologists, instead of challenging at once their theory, when the mask of such a man is placed before them, begin to doubt what was never before doubted, and set themselves to consider whether, after all, a man with a great deal of patience, and good perceptive powers, and moderate reasoning faculties, might not manage to do what Newton did. And it seems to have been decided that large reflective faculties, as they are termed, are by no means necessary for the display of great mathematical talent, this chiefly depending on the perceptive faculties. How this conclusion is made out, heaven only knows, but it seems to have been not a little affected by the frequent association of great mathematical genius, with a small development of these said reflective faculties. So that it appears that the highest, the most abstract, and the most rigorously exact order of reasoning is chiefly an affair of such perceptive organs as locality, size, weight,individuality, and so forth: and that men who are usually buried in abstractions, and who often carry their demonstrative tendencies to a laughable extent into the most ordinary affairs, are, after all, men of very moderate reasoning powers, but excellent perceptive faculties. These are wretchedly lame explanations of facts, and wholly unworthy of the name of science.

It is a gross, but a frequent delusion on the part of many phrenologists, to imagine that their science gives them a peculiar right to pronounce authoritatively in disputes respecting the talents of individuals. They certainly have better means of predicting undisplayed talent than others, but when we have, in a sufficient degree, before us, the acts and the writings of men, these are the *ultima ratio*, and no theories can be allowed to interfere with the conclusions to which they obviously lead. The only persons entitled to decide in these cases with any authority are those who are themselves great in the particular department that happens to be in question; or who, at least, are acknowledged to possess unquestionable judgment in the matter. Napoleon was a better judge of the genius of Cæsar than Dr. Gall; and we would much rather hear what Sir John Herschell had to say about Sir Isaac Newton than ask the opinion of Mr. Combe; while the latter must, obviously, be better able to pronounce upon the talent of a metaphysician, than any mere astronomer can.

If then it be true that Sir Isaac Newton possessed a small forehead, and we apprehend there can be no doubt upon the matter, it follows that the law which we have spoken of is false, unless indeed we go in the teeth of the unanimous decision of the intellectual world, and deny such a man the possession of great talent. One fact would destroy this law as effectually as five thousand. But if the case of Newton be disputed, many others may be obtained. In a former number of the Journal, we quoted the cases of Dean Swift, and Lord Brougham; in another part of the present number will be found references to two other remarkable men—Judge Marshall, and Mr. Colhoun, of the United States. There are many less striking instances that might be adduced at once, but our object in this article is not to accumulate cases, but rather to point out the tendency of our argument. We shall hereafter bring numerous facts of this kind forward, and place them in full prominence. There are few phrenologists of any experience, but must allow that they have met with masks, casts, busts, and portraits,where the size of the forehead was very inferior to the anticipations they had formed in consequence of the reputation of the individual. Let these cases be rigorously examined, and their faith in the position we are contending against will inevitably be shaken.

CORRESPONDENCE.

To the Editor of the People's Phrenological Journal.

SIR,—Whatever odium may attach itself to error, I always deem it far more honourable at

once fully, and frankly, to acknowledge and correct it, than tacitly to suffer it to do its baneful work on the minds of others. Therefore, I have no hesitation in hastening to acknowledge the error I inadvertently fell into, regarding the subdivision of the organ of concentrativeness, or, rather, of the respective localities of its two portions, they being exactly transposed in my postscript, from what they really are in nature. Whether I may be excused for this error on the score of its being some time since I have made any observations on this division, and not having marked it on any bust in my possession, and having, besides, written from memory at the time; whether this will be a sufficient apology, or not, I have, at least, the consolation of having made the *amende honourable*. Before dismissing this subject, I beg to state that, in reference to the functional manifestation of these divisions, they are stated precisely as observed in nature. I recollect a female in whom I excited the love of home, when she immediately drooped her head, as in a very thoughtful mood. Then, with tears ready to start from her eyes, she shook her head with apparent sorrow; and when asked, "What are you thinking of?" she again shook her head, and replied, "Of home—my dear home."

Then, respecting the improvements suggested to be made by yourself, and your correspondent, Mr. Preston, in the craniometer invented by me, I beg to say, that being fearful of trespassing too much on your disposable space, I sent the diagram, with a view of ascertaining the opinions of practical phrenologists on its general principles only, leaving the details for a further communication, as being of no consideration until a scientific opinion be given on the principle itself, having had, I freely admit, considerable misgivings in my own mind, up to the time I read Mr. Prideux's letter on the same subject in the *Zoist*. The only improvement suggested which had not occurred to my own mind, is that named by yourself, of giving to the bulbs which are to enter the ears, a swivle-like motion, on the two spindles, at the end of which the bulbs are fixed. That this is a most decided improvement there can be no question. I would also, advise, that a portion of cotton wool be placed in the ears, previous to adjusting the instrument. The additional improvement proposed by your correspondent, Mr. P., I conceive to be attended with greater inconvenience than appears at first sight, if not absolutely impracticable for the intended purpose. To meet the deficiency intended to be compensated by Mr. P's improvement, I had proposed to make use of the spindles, which may be applied to all the purposes of ordinary callipers, by marking the inches, and parts of inches, correctly on them. There are also some little inconveniences occurring in the use of the flat slide, which appear to have escaped the observation of yourself and correspondent. For instance, in taking the measurement of philoprogenitiveness, for proper convenience the slide ought to be on the top part of the instrument, or the figures will not be so easily seen. Then when you bring the instrument over to individuality, the slide will be on the lower side of the instrument, and the degree indicated thereby cannot be seen. Now to obviate this difficulty, I have a plan whereby the slide may be transferred from one side to the other, with the least possible trouble, but it would be a very tedious task to describe it, which may be said also of several other intended improvements, of which no mention is made until it be satisfactorily settled—that the size of an organ in one direction, may be correctly ascertained, by taking the distance from the meatus, to the external surface to the cranium. What I consider this instrument to excel in, above all others of the kind, is in taking a section of the cranium in any direction, which may be taken to any scale, and with the greatest precision. And that such a thing is very desirable, must have been long felt by students in phrenology. My proposed plan is, to place a tape measure over the cranium, along the line of the intended section; then, at every inch distance to record the variations, and, from a graduated scale, mark them on paper. And as nothing can be done without trouble, from the attention I have paid to the working of this instrument, I feel confident that it can be employed with much greater dispatch, and less trouble, than you are disposed to think. I have not, myself, made more than a paste-board model. The expense of one may be considerably diminished, by making one of hard wood, which would answer equally well. The screws you refer to, for the purpose of tightening the spindles after the instrument is adjusted, had been supplied by me in a subsequent letter, which I suppose must have been mislaid. I should have noticed this at the time, but that I consider this omission had no direct bearing on the principles of the instrument itself. If the verdict of the phrenological world should be favourable to the principles of this invention, I intend making one with the additions referred to in this letter, and which, if you desire, may be sent for your inspection.

Your's very respectfully,—ROBERT JONES.

Liverpool, November 28, 1843.

P. S. If Mr. Prideaux would favour us with his opinion on the subject, I think I should not be saying too much by asserting, that he would be conferring a very considerable favour on the phrenological world generally.

[We have not seen the letter here referred to. If Mr. Jones should make such an instrument as he speaks of, and finds it convenient to send it to us, we shall have it fully tested. If he will let us know when he is about to have the instrument constructed, we will give him our ideas on the subject more fully.]—ED.

To the Editor of the People's Phrenological Journal.

DEAR SIR,—Hoping you will assign all proper motives for the following, and if you think

it worth printing in the *People's Journal*, the doing it will oblige, Sir,

Your's, most sincerely,

A SUBSCRIBER.

GUILTY OR NOT GUILTY.

The laws of civilized man, framed on the yet maturest knowledge, relating to criminality, at least the law of our land, I believe is, that none shall be held guilty till guilt is proven. Of old, nay, but a few generations ago, as I likewise believe, the law was different in respect to this, they then consigning the yet unproven guilty being to harsh incarceration, in accordance with the blackness of the crime for which the committal was made; but now, however, this is not the case. Experience, the most certain and powerful corrector of errors, and enlightener of intellect, taught justice the wisdom that none are guilty till proven: but, phrenologically, what of this? Does it consign this maxim—with those of late entertained in regard to the madhouse, moral philosophy, religion, and politics, to the region where all lies and impositions, and follies, have been, and shall be cast? Or, is this a maxim founded on a rock, in scriptural language, against which, when the rains fall, and floods rise, and winds blow, they beat in vain? In some respects, in phrenological language, this seems, indeed, one of the illusions of ignorance; yet, again, in phrenological language, it seems not so, for its teachers assert, and reiteratedly assert, that though we can tell the natural character—a character not yet very lucidly explained, we can not predict actions, that is, as I conceive, although we can tell the leading impulses, sentiments, mechanical aptitudes, and intellectual faculties, we cannot tell how they have acted under given circumstances, neither can we tell how they will act: with this the maxim—*unproven unguilty*—harmonizes, I think. But we find, for all this, manipulators predicting actions, not in general, but in minutiæ, as, for instance, this man has no conscience, or benevolence, or intellect, relatively, to guide and direct his large avarice, lust, revenge, and wrath, and therefore he is dishonest, cruel, and revengeful; and still we have, it is admitted, dishonesty where conscience reigns, cruelty where benevolence presides, &c.; then how can those manipulators, predict actions? or, how can they loath and distrust this or that person, on account of his mis-shapen head? A harmless creature may be denominated a dangerous character; or a man of dangerous tendency may be announced to be worse than Hare, &c., forgetting what erewhile is asserted, viz., that actions, cannot be predicted, but condemning the maxim unproven unguilty, as well as the warning, that by their fruits we shall know them; at least, superseding the last. Thus it is they assert one thing here, and another there—making an unintelligible thing of this said noble science. If any are inclined to dispute this, let them consult the works of George Combe, and, I think, the columns of the "People's Phrenological Journal." In one part they will find reasons phrenological, to assert, unproven unguilty; and in another reasons, also, for saying, not unguilty not proven; and, again, though unproven, unguilty. If phrenology does permit all this, those things ought to be elucidated, that such seeming contradictions may be seen to be no contradiction.

[Many manipulators are often guilty of great impropriety morally, as well as phrenologically, by the manner in which they speak of actions as resulting from organization. Phrenology enables us to obtain similar knowledge of character to that which may be obtained by other means, often to a greater extent, and in a more complete and available manner, but still the same kind of knowledge only. Actions depend not on organization alone, but, also, upon a thousand influences acting upon organization. It is, therefore, absurd for man, under any circumstances whatever, to undertake to predict individual actions. Sometimes approximations and conjectures may, and must indeed be formed, but these should be only classed among possibilities or probabilities. On the other hand, disposition may be legitimately predicted; and character also frequently. We can tell whether a man is a passionate man, though we do not know when, and where he has been, or will be angry. We can say of another that his disposition is most affectionate and friendly, though we know not who, or how many are his friends: and so of other traits of character. In a word, the perfection of phrenology would consist in giving us that intimate knowledge of character which we sometimes find possessed by an intelligent and discriminating person, in regard to his most familiar acquaintances. There is surely nothing dangerous in this.]—ED.

EXTRACTS.

GREAT TALENT CONJOINED WITH A SMALL FOREHEAD:—JUDGE MARSHALL AND MR. CALHOUN.

We give below, as an instance of the union of great talent with a small forehead, the following sketch of the character of the late Judge Marshall, of the United States. It is taken from *Murray's Travels in North America*,* and is, we believe, not in the least exaggerated. Our authority for asserting that Judge Marshall had a small forehead is a bust, which we have been assured, by those acquainted with him, was very accurate. But even without this assurance, there would not be the least reason for doubting its accuracy, in this feature at least. In these days of artistic exaggeration it would be very little short of a miracle to find a sculptor giving, to so remarkable a man, a smaller forehead than that which nature had bestowed upon him. He could not but know that such a fault would be instantaneously detected, and bitterly complained of, on all hands; while every allowance

* Travels in North America, during the years 1834, 1835, and 1836, by the Hon. Charles Augustus Murray. London. 1839. vol. 1st, p. 158.

would be made for so venial a fault, in an artist, as flattery. It is four or five years since we have seen this bust, and our present recollection of it may not be entirely faithful. We are certain however of the impression it made on us at the time, as we have since been in the habit of referring to it as one of the remarkable facts against the present phrenological doctrine, on this point. We do not say that this forehead is one of the *smallest* kind, but that, as compared with the foreheads of the majority of educated persons in these countries, it is decidedly small. It is of a very moderate size absolutely, and small when compared with the head generally. We have little doubt that we are much within bounds in this description, but if not, some of our readers will, we dare say, hereafter, correct any error we mayhave made.

"Judge Marshall, who is chief justice of the supreme court, and, in fact, lord chancellor of the United States, is one of the most remarkable and distinguished men that has adorned the legislature of either shore of the Atlantic. He began life as a soldier; and during the American war served in the militia, where he rose to the rank of a general; after which he came to the bar, and passed through all its gradations to his present high situation, which is, in my opinion, the proudest that an American can enjoy, not excepting that of President, in as much as it is less subject "arbitrio popularis auræ," and as the court over which he presides can affirm and decide what is, and what is not the constitution of the United States. The judge is a tall, venerable man, about eighty years of age, his hair tied in a cue according to olden custom, and with a countenance, indicating that simplicity of mind, and benignity, which so eminently distinguished his character. As a judge, he has no rival, his knowledge being profound, his judgment clear and just, and his quickness in apprehending either the truth or fallacy of an argument as surprising. I had the pleasure of several long conversations with him, and was struck with admiration at the extraordinary union of modesty and power, gentleness and force, which his mind displays. What he knows he communicates without reserve; he speaks with a clearness of expression, and a tone of truth, which compel conviction; and on all subjects on which his knowledge is not *certain*, or which admit of doubt or argument, he delivers his opinion with acandid diffidence, and with a deference for that of others, amounting almost to timidity. Still, it is a timidity which would disarm the most violent opponent; and win respect and credence from any auditor. I remember having often observed a similar characteristic attributed to the immortal Newton. The simplicity of his character is not more singular than that of his life; pride, ostentation, and hypocrisy are "Greek to him;" and he really lives up to the letter and spirit of republicanism, while he maintains all the dignity due to his age and office.

"His house is small, and more humble in appearance than those of the average of successful lawyers or merchants. I called three times upon him; there is no bell to the door: once I turned the handle of it, and walked in unannounced; on the other two occasions he had seen me coming, and had lifted the latch and received me at the door, although he was at the time suffering from some very severe contusions received in the stage while travelling on that road from Fredericsburgh to Richmond, which I have before described. I verily believe, there is not a particle of vanity in his composition, unless it be of that venial and hospitable nature which induces him to pride himself on giving to his friends the best glass of Madeira in Virginia. In short, blending as he does the simplicity of a child, and the plainness of a republican, with the learning and ability of a lawyer, the venerable dignity of his appearance would not suffer in comparison with that of the most respected and distinguished-looking peer in the British House of Lords."*

Mr. Calhoun is thus spoken of in the same work.†

"He is indeed one of the most distinguished men in the Union. His name is familiar to Europe, as the great champion of the Southern States, and the pillar of that nullification question which threatened at one time to dismember the confederation. His manner is lofty and commanding; his eye, searching, keen, and deeply set under a considerate brow. He is an acute reasoner, and the analytic power of his mind is most remarkable. Some there are who consider him as a more eminent statesman than either Clay or Webster: this is a question that I do not feel able, or called upon to decide. But that they are all three men of whom America has just reason to be proud, is a truth to which I have much pleasure in here recording my testimony."

We have always heard Mr. Calhoun spoken of as having a peculiarly small forehead, the hair coming remarkably low down on it. He is usually referred to by anti-phrenologists as furnishing a decided case against the science.

EFFECTS OF CLIMATE, etc. ON HUMAN BEINGS.

(*Continued from page* 51.)

Here we cannot doubt that climate has operated, either in clearing the dusky, or rendering dusky the white.

It is a remarkable circumstance attending the black people in Africa, in India, and in Central America, that amongst them albinos are frequently born, that is, persons of a pure dead white, with white hair and red eyes. This is thought to be a diseased condition; but, besides these, there are instances by no means infrequent, of *true whites being born amongst the black races*. This fact was long doubted, but it seems to be now set at rest. White children, or Dondoes, are frequently born from black parents in all parts of Africa. Many of them are what we would call the fair complexion: some have even red hair. Among the Funge, a race of Shilukh negroes, who some hundred years ago conquered and settled in Sennaar, they are particularly numerous, insomuch as to have formed a separate cast, distinguished by the name of El Aknean (the Red People). Dr. Winterbottom describes a man born of negro parents, who was of mulatto complexion, and much freckled, with strong red hair, disposed in small wiry curls over his whole head. Mare-

* "The honoured object of the foregoing remarks has since paid the debt of nature; but I have left them as they were originally entered in my Journal."

Vol. 1, page 138.

graf saw in the Brazils, an African woman whose skin and hair were red. Dr. Winterbottom mentions a family at Freetown, in Sierra Leone, the children of which had red, or copper-coloured skins, and woolly hair of a dirty red or singed colour. From the testimony of an eye-witness, he describes two white negroes, natives of the Mandingo country. In both of these, the iris was of a light-blue colour and the eyes very weak, the hair woolly and white: the skin was rough, and had red patches here and there, an effect often seen in white people when exposed to a tropical sun. A white negro girl, born in Jamaica, was shown in London in 1761; she had a fair complexion, with ruddy lips and cheeks, brownish-gray eyes, and light-yellow hair, of woolly texture. There are many other descriptions of such persons, but it would be tedious to enumerate them. Let us only advert to one in which the interesting fact was ascertained, that the same mother had had two children so characterised. It also appears, that there is a tendency to a hereditary transmission of this peculiarity. Dr. Parsons relates, in the Philosophical Transactions, the case of a white negro girl, a native of Virginia, who was brought to London early last century, to be shown to the Royal Society. When she was born, the mother, for obvious reasons, expressed the greatest alarm for the anger of her husband, and requested that her room might be darkened, so that he might not at first become aware of her child being white, though she expected that he would by and by learn the fact, and then desert her. Her surprise was great when he seemed rather pleased on discovering the colour of the infant, which, however, he explained, by telling her that he only recognised in it a peculiarity of his own family: 'for," said he, "my own father was a white man, though my grandfather and grandmother were both as black as you and myself; and although we came from a place were no white people were ever seen, yet there was always a white child in every family that was related to us." Many similar cases are on record, fully proving, that the rise of the white races of men out of the black, is within the range of possibility, as, indeed, it seems only necessary that white negroes should marry amongst themselves, in order to raise such a variety under our own observation.—*Chambers' Edingburgh Journal.*

PHYSICAL CHARACTER of the GERMAN NATIONS.

(*From Dr. Pritchard's Researches.*)

"It is well known that the German nations are universally described by the ancients, as a people of tall stature, robust form, with fair complexion, red hair, and blue eyes. A great number of passages are cited from the classical writers in which these traits are described."

"Eunapius gives a strange description of the Goths. He says their bodies are drawn out to an useless length, and that they are heavy in the feet, and drawn in about the middle, as Aristotle describes insects to be."

"The Arabian traveller, Ibn Foszlan, compares the north-men to palm-trees."

"Procopius says, that the Gothic nations are all of white bodies and yellow hair; and St. Jerom terms their armies "red and yellow bands."

From a great variety of statements of this kind, "some more particular and explicit than others, we must conclude that a lofty stature, yellow or rather red hair, and blue eyes, with a fair complexion, were almost universal characters of the Germans, at the period of their wars with the Romans. How they lost these characters as distinguishing traits, and became assimilated to the other nations of northern Europe, is a question that cannot be speedily answered. One remark occurs to be made on this subject, which is, that the climate and physical history of Germany, and the manners of its inhabitants, have been assimilated in a nearly equal degree to those of the neighbouring countries."

"With regard to the form of the head, in the ancient Germans, we have no information from classical writers. This subject might be elucidated from the remains of ancient tombs; but I am not aware that such an attempt has been made in a comprehensive manner. The modern Germans are well known to have large heads, with the anterior part of the cranium elevated and fully developed. They have this peculiarity of form in a greater degree than either the French or the English."

TO CORRESPONDENTS.

W. H.—Dr. Gall's large work, now in course of publication, will be given without any abridgment. The American Edition referred to, is limited to the same work.

A. Lundin.—This gentleman's letter has been received too late to enable us to answer his enquiries this week. We shall endeavour to give the information he requests, in our next.

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A COMPLETE SYSTEM OF PHRENOLOGY.

WONDER—(*Continued*).

We see the influence of this organ still in the ridiculous and barbarous customs to which our nobles, judges, and officers submit, often decked like merry Andrews to excite the gaping admiration of a crowd.

The organ is generally large in the French head, and, in accordance, we find the manifestations in the manners and language—a mere ordinary occurrence is pronounced superb, magnificent, &c.; following new fashions, or devising them is another way in which our neighbours show the strength of this feeling, they have always what is new in dress, furniture, &c.: it no doubt, in part, contributes to the style and excellence of manners, it gives a general tendency to exaggerate, and hence is opposed to a strict adherence to truth. It is generally under the influence of this faculty, that boys choose the sea for a profession—it gives the liking for news—some people are wretched till they know all that has happened around. Writers, and especially newspaper writers, to make money, minister to this morbid taste of the public, and, it is very questionable if the immense rage for reading publications of this sort, is not a proof of the real ignorance of a nation. In many parts of England, the firmest belief is still held of pixies, fairies, &c., and this organ is, no doubt, largely developed in most who eagerly embrace new discoveries. It has been the same in all ages. Livy says Book 1. chap. 19., "Numa Pompilius, after he had closed the temple of Janus, when he had made peace with all the neighbouring nations, in order that the minds of the people might not become idle, from the removal of external cares, and the fear of the enemy; he thought that the fear of the Gods, a thing of the greatest efficiency to restrain an unprincipled multitude, and ignorant in those ages, must be impressed on their minds. And since he saw that this fear of the Gods could not descend into their minds without some pretence of a miracle, he pretends that he has nightly meetings with the Goddess Egeria, and, that by her advice, he institutes the sacred rites, which are most pleasing to the Gods; and that he appoints their own priests to each of the Gods. A constant reverence for the Gods, being implanted in their minds, (since the Celestial Deity appeared to be interested in the affairs of men) had filled the minds of all with such piety, that faith and justice (the fear of punishment and laws being inferior) ruled the state."

When this organ is small, there is a want of sensibility to all that is elevated, above the usual routine of affairs. Everything must be made evident to the senses. There is neither faith or belief in anything beyond the ken of their own vision. Others who are more favorably endowed appear to them to be wild and hyperbolical; they are cold and apathetic. Authors and speakers endowed with this faculty and language, are prone to manufacturing new words.

EXAMPLES.—Socrates spoke frequently and willingly to his disciples, of a demon or spirit which served him as a guide. Joan of Arc believed St. Michael had appeared to her, and given her command from God, to raise the siege of Orleans, and to install Charles VII., as King, at Rheims. Tasso asserted that he had been cured of a dangerous illness by the aid of the

Virgin Mary, and St. Scholastica, who appeared to him during a paroxysm.

Dr. Gall quotes the following passage, from La Vie de Tasso, publiee a Londres, 1810. "Tasso believed that he conversed with familiar spirits. One day when Manso, the Marquis of Villa, endeavored to drive these ideas from his mind, Tasso said, 'Since I cannot convince by reason, I shall do so by experience; I shall cause the spirit in which you refuse to believe, to appear to your own eyes.' 'I accepted the offer,' says the Marquis, 'and next day when we sat by the fire, conversing, he turned his eyes towards the window, and looking with stedfast attention, appeared so completely absorbed, that, when I called to him, he did not answer. 'See,' said he at length, 'See, my familiar spirit comes to converse with me.' I looked with the greatest earnestness, but could see nothing enter the apartment. In the mean time Tasso began to converse with the mysterious being. I saw and heard himself alone. Sometimes he questioned, and sometimes answered, and from his answers, I gathered the sense of what he had heard. The subject of the discourse was so elevated, and the expressions so sublime, that I felt myself in a kind of ecstacy. I did not venture to interrupt him, nor to trouble him with questions, and a considerable time elapsed before the spirit disappeared. I was informed of its departure by Tasso, who, turning towards me, said, 'In future you will cease to doubt,' 'Rather,' said I, 'I shall be more sceptical, for although I have heard astonishing words, I have seen nothing,' Smiling, he replied, 'You have perhaps heard or seen more than—' He stopped short, and fearing to importune him by questions, I quitted the apartment,"

Swedenborg believed himself miraculously called to reveal to the world the most hidden mysteries. "In 1743," says he, "it pleased the Lord to manifest himself to me, and appear personally before me to give me a knowledge of the spiritual world, and to place me in communication with angels and spirits, and this power has continued with me till the present day." "Swedenborg," says his biographer "was a man of unquestionable sincerity, but one of the most extravagant enthusiasts that ever existed.*"

Dr. Jung Stilling, was a tailor in his youth, then a tutor, afterwards a doctor of medicine, moralist, divine, journalist, illuminator, and visionary. He had this organ remarkably developed, and he believed firmly in apparitions, and wrote a book in exposition of this doctrine. It would be useless to mention the many cases in which this organ is large, and in which the individuals have seen visions, fancied themselves accompanied with familiars, spirits, second sights, &c. They may be found in all classes of society. Socrates, Joan of Arc, Cromwell, Milton, Tasso, Dante, Earl Grey, &c. Musicians, painters, poets, and all who have indulged in the love of the marvellous will be found to have this organ largely developed, as may be seen from their busts and portraits.

Broussais quotes, among modern men of science, who have this organ large, and who have manifested the faculty in their works, Demorlaues, Destainières, Roland, Neukomn, Charpentier, Cassimer Perrier, Constant, Foy, and Spurzheim. The works of these individuals are a corroboration of these views; for negative examples we have only to search the prisons and the degraded of all classes. This is an important point in connexion with criminals and the habitual inhabitants of our workhouses; in almost all there is a deficiency of wonder, ideality, hope, and veneration. This is the key to their degraded condition, and shows to what may mainly be attributed the deplorable condition of so large a portion of the population of all civilized countries.

Animals. — There cannot be found in the writings of phrenologists or naturalists anything to justify the inference that any animals of the lower grades, or below man, possess even a a sketch of this faculty, nor does anatomy show that any of them have this portion of the brain at all developed.

Natural Language.—This organ being active, a peculiar expression is observed in the face. The mouth, as it were, gaping open, expressive of awe, or wonder; the eyes are turned up and outward in the direction of the organ; the hands, too, are elevated, and the whole body more or less thrown into an attitude of disorder foreign to the calm regularity which results from reflection. It imparts a certain wildness to the look, which becomes habitual to those under the influence of this passion.

Akenside in his "Pleasures of Imagination," has beautifully described the faculty, and in many points its natural language.

"Witness the sprightly joy, when aught unknown
Strikes the quick sense, and wakes each active part
To brisker measures. Witness the neglect
Of all familiar prospects, though beheld
With transports once; the fond attentive gaze
Of young astonishment; the sober zeal
Of age, commenting on prodigious things:
For such the bounteous providence of heaven,
In every breast implanting the desire
Of objects new and strange, to urge us on
With unremitted labor to pursue
Those sacred stores that wait the ripening soul
In truth's exhaustless bosom. What need of words
To paint its power? For this the daring youth
Breaks from his weeping mother's anxious arms,
In foreign climes to rove; the pensive sage
Heedless of sleep, or midnight's harmful lamp,
Hangs o'er the sickly taper; and untired,
The virgin follows, with enchanted step,
The mazes of some wild and wondrous tale,
From morn to eve. Hence, finally by night
The village matron, round the blazing hearth,
Suspends the infant audience with her tales
Breathing astonishment! Of witching rhymes
And evil spirits; of the death-bed call
Of him who robbed the widow, and devoured
The orphans portion; of unquiet souls

* Lib. Cit. p. 342.

Risen from the grave to ease the heavy guilt
Of deeds in life concealed; of shapes that walk
At dead of night, and clank their chains, and wave
The torch of hell around the murderer's bed!
At every solemn pause, the crowd recoil
Gazing each other speechless, and congealed
With shivering sighs, till eager for the event,
Around the beldame all erect they hang,
Each trembling heart with grateful terrors quelled.

On the frequent occurrence of a Fair, or Red Beard in conjunction with Dark Hair.

(*By the Editor.*)

Why do we so often see dark-haired men with fair or red beards? This is a question which probably few persons have ever asked themselves, and which still fewer would be able satisfactorily to answer; and yet it is one which would offer little difficulty to the ethnologist, were ethnology a science. Some may deem such an inquiry trifling; in this they judge unwisely. Nothing can be trifling which has a direct bearing upon the laws of human organization. So far from being trifling, this fact forms an interesting link in a most important chain of phenomena. It at once reveals a law in organization, and a series of events in ethnology. It speaks of a double origin in the individual, and of the principle which regulates the transmission of the qualities of parents to their children.

It is indisputable that there have existed, and existed for ages, whole races of men with florid complexions, and red hair and beards; and it is equally certain that there have been other races with fair complexion, and fair hair and beards; and others still with fair or dark complexion, and black hair and beards. All these races are spoken of in history, and remnants of them exist to the present day. It is thus certain that some, at least, of the physical peculiarities which contradistinguish different tribes of men may be transmitted, without modification, through a long series of generations. When, therefore, we perceive the blending of these distinctive peculiarities, we have a right to infer a blending of races—a mixture of blood. This inference becomes the more safe, when we find it so abundantly confirmed by actual experience. There are continual instances of the intermarriage of fair Europeans with the dark races of Asia, Africa, and America, and we invariably see the offspring displaying intermediate peculiarities. When, however, several different races have been for a long time blended together, so many apparent irregularities arise that we cannot always predict the qualities of the offspring from knowing those of the parents. Had it not been for this, it would have been impossible that the opinions of naturalists, on this point, could have so long remained in that vague, unsettled, and contradictory state in which we now find them. But still, even these aberrations would not have presented any very formidable difficulties, had they not been connected with certain theological, or semi-theological theories, which drew wholly gratuitous distinctions between the laws of organization which apply to man, and those which apply to all other animals. Precisely similar regularities and irregularities are observed among our domestic animals. When individuals of entirely distinct and pure species are brought together, we can calculate with great confidence upon all the leading peculiarities of the offspring. But when the parents happen to be themselves of very mixed origin, we often find that peculiarities of the most unexpected kind make their appearance in the offspring. As, however, we have here been untrammelled by theory, these occurrences have not in the least shaken our confidence in the existence of a rigorous system of laws regulating the transmission of qualities from parents to offspring. But in the case of man, all sorts of notions have been held, in reference to facts, in every possible respect analogous.

Assuming, then, that the organization of the offspring is strictly determined by that of the parents, we have next to inquire into the amount of influence exerted by each sex respectively. The most natural conclusion to arrive at would seem to be, that each parent should determine, either wholly or chiefly, the qualities of the children of its own sex, in all those points in which the sexes differ; and that their influence should be equal, or nearly so, in all other matters. That this is the law, in many departments of the organization, is perfectly obvious. We have no doubt that, with some qualifications, it will be found to apply throughout, and that the various intellectual and affective organs are influenced by it, to as great a degree, as the more physical peculiarities, though the results cannot, of course, be so obvious. For instance, the social organs are larger in the female than in the male head, when both individuals are of the same race; but it is often otherwise where the races differ. In the latter case, the male children of a family would, according to the above law of sex, be far more social and attached than their sisters, as they would take after their father, while the latter would, chiefly, follow the organization of the mother. In like manner, the forehead should be larger in the male than in the female; but then again, the females of some races have much larger foreheads, and are immeasurably more intellectual than the males of other races; when such marry, we should, of course, expect to find the daughters very superior to the sons, both in intellectuality, and in the size and shape of the anterior region of the head; and facts are in harmony with this expectation. On the other hand, the region of the moral feelings is a neutral ground, and here the sexes ought to divide their respective influences more equally; though even here, the obvious tendency appears to be, for the father to give more to the son, and the mother more to the daughter.

The law here explained will at once enable us to account for a large portion of the differences, and apparent contradictions which we find amongst the members of the same family. The following one will clear away the greater part of those which remain. We are not aware that any law of the kind has as yet been spoken of in

connection with organization. This, however, is of no consequence, provided it be true. Reflection, as well as observation, has convinced us that, in all cases, the sexes transmit their respective peculiarities in determinate but unequal proportions; as, for instance, two quantities of one kind, unite with one quantity of another; three of one, with two of another, and so forth. In a word, we think it admits of the clearest proof, that a law, analogous to that now universally admitted in regard to inorganic bodies, regulates the affinities and blendings of organization. The necessity of such a law may be made evident from *a priori* reasonings; its admission affords the only explanation of a host of otherwise contradictory facts. It will follow from it, that when the peculiarities of the parents are not presented in harmonic proportions, they will not unite at all, so that in the points of organization in which there is this clashing, the children will have to take wholly after one parent or the other—probably after the one in whom the peculiarity, of which there is question, is, for the time being, in greater energy. Thus, in some families, where the father has fair hair, and the mother dark, some of the sons will take wholly after the father, in this respect, and some wholly after the mother, and so of the females. In other families, on the contrary, where the parents are thus distinguished, the children will display a due medium in the colour of the hair. It will be brown—lighter, perhaps, in the males, and darker in the females, and sometimes also slightly alternating. Precisely similar occurrences will be noticed in the cerebral organization, and, indeed, in the organization generally. It is also reasonable to suppose, that it is this law which chiefly determines the sex of the offspring; and perhaps, too, the failure of offspring may, occasionally, depend upon it, rather than upon any organic defect in either parent. There are many other important deductions to be made from it which we must pass over for the present; we shall now briefly glance at what strikes us as the most important, or at all events the most obvious *a priori* reason for the existence of such a law in organic combinations.

Every one must have remarked the instantaneous interest and sympathy which some persons have excited in his mind, as contrasted with the indifference, or instinctive dislike which he has felt for others. In the former case, he seemed to enter, at once, into the feelings and character of the individual. He did not judge of them by any process of reasoning, he read their minds by looking into his own. Both minds were instruments tuned in unison, and every chord struck in the one, found a response in the other. In the latter case, however, the instruments were not in unison, and consequently, there were jarrings, discords, and oppositions, and each presented to the other much that was disagreeable, unaccountable, and absurd. In these cases, examination would shew that there were co responding agreements and differences in external appearances; and we should ultimately arrive at the fact, that perfect and universal sympathy can exist only between persons of the same race. The word sympathy, as used here, must not be mistaken for love. Perfect love may exist without perfect sympathy, in this sense. The love of parents for children is perfect in its kind; but the sympathy between the adult and the child is but very partial. Perfect love exists between the sexes, but it is between persons of the same sex only, that the most complete mutual intelligence exists; this is what we here mean by sympathy. As for love, it depends on laws of contrast, as well as of agreement. Numerous and most striking instances of deficient sympathy may be noticed, as well between races, as between individuals. How different, for instance, are the wants and feelings of the civilized European, from those of the native tribes of America, central Africa, or central Asia. How slight, comparatively, their mutual intelligence. There is, of course, much sympathy between all portions of mankind, because in their leading traits, all resemble. This sympathy increases, as races approximate; it becomes perfect between individuals of the same race only. But we need not pass the boundaries of our own country for illustrations. Celtic and Germanic tribes have been mingled together for ages. They have not been in juxta position merely, they have mixed their blood; and yet, to this day, they do not harmonize, nor understand each other.

Now, were it the law for parents to transmit their peculiarities in equal, or in indefinite proportions, it is clear, that an endless range of varieties would result from the intermarriages of two or three distinct races, to say nothing of the effect of a greater mixture. In such a case, the differences and clashings of character would be so innumerable, that nothing like unity of purpose could exist. Nay, in process of time, it would be difficult to find two individuals alike, not merely in general character, but even in any one feature of character. Such a state of things would be wholly incompatible with man's present nature. It is, at all events, evident that things are not arranged thus. Amid the blendings of races which civilization presents at the present day, it is perhaps impossible to meet with individuals who agree in all points of character; but there is no difficulty whatever in finding numberless instances of general agreement. We find everywhere grades and classes drawn together, as well by instinct, as by circumstances, and though differing individually, in certain points, fully sympathizing in their leading tendencies. This would be impossible according to the above arrangements; it is the natural consequence of the law of harmonic proportion. This law permits, indeed, the existence of numerous varieties; but, at the same time, it keeps the varieties within strict limits, and is, besides, far more favourable than the other to the reproduction of the original races. Under its influence, a double process is always going on; for while some families are multiplying varieties, others are diminishing them. There is another important contrast between these laws. By that

of equal, or indefinite mixture, the perfect obliteration of a race, by intermarriage, would be mathematically impossible, as matter is infinitely divisible. By that of harmonic proportion, on the contrary, a few generations would suffice for this purpose. This law, therefore, appears to be one of the means employed by Providence for the gradual extinction of races which have fulfilled their destiny. It is obviously the chief means of producing a proper blending of those which are intended to be more permanent.

After these explanations, we are in a condition to answer the question with which we commenced, and to show satisfactorily why it is that dark-haired men have often red beards. The hair of the head is common to both sexes, the beard is peculiar to man. It is in every way a sexual feature. It is natural, therefore, that its colour, texture, &c., should depend far more, to say the least, on the male than on the female parent. The latter must usually exert some influence, otherwise the colour of the beard would be unchangeable, which is not the case. This influence is much less than that which she exerts on the hair; and consequently, we often meet with the contrasts we have alluded to.

Every thing leads to the conclusion, that in original races the hair and beard are alike in colour. A variation in this respect is, therefore, a clear indication of mixture. It enables us also, to say which peculiarities have come in the male line, and which in the female, which has been the conquering race, which the vanquished. In these countries, the beard is *usually* of a lighter colour than the hair—it is often red, while the latter is dark brown, or even black; and we know, also, that in these countries, the conquering races have been fair-haired, or red-haired; and that they must, for the most part, have married native women, as they came in the character of soldiers, rather than of colonists. There must then, have previously existed here, dark-haired races; and these must have been more numerous than the conquerors, or have been, since, less subject to casualties; for the dark-hair now prevails over the red and fair. Again, in these countries, the predominance of dark hair has a close relation with the advance of civilization. As the nation has become less warlike, and more intellectual, the proportion of dark hair has increased. This is particularly obvious in the higher orders. It would seem to indicate, that the more intellectual races, as well as many of the inferior ones, were primarily black-haired. It would by no means follows from this, that the highest talent ought invariably to be found in conjunction with black hair, since it is well known that, in blending two races, the progeny is sometimes superior, and at others, very inferior to the parents.* Neither will it follow, that a fair-haired individual may not be chiefly of the intellectual race, since, as we have already stated, he may take altogether after one parent in this element of colour, while he receives his full share of all those peculiarities essential to talent. If, however, dark hair be one of the characteristics of the primary intellectual races, great talent ought to be usually accompanied with dark or brown hair. This is a point that requires more extensive observation than has as yet been bestowed upon it.

Thus it may be seen, that there are many curious and important questions intimately connected with this apparently trifling matter. We have now been able to glance at a few only of the most prominent of them. We shall speak more fully of them hereafter. We may learn from the present, as from a thousand other instances, that in the works of nature, there is nothing really isolated, or unimportant. The most simple fact, could we trace all its relations, would open out to us a whole volume of science.

* We shall explain ourselves more fully next week upon this and some other points. We have been more brief than we could have wished, in order to bring the whole subject within the bounds of a single article.

THE PEOPLE'S PHRENOLOGICAL JOURNAL.

We have been asked by a Correspondent, who seems alarmed at our attacks upon some of the recognized doctrines of Phrenology, as well as at the other novelties we have brought into discussion, what it is we mean to do with Phrenology? Some of our readers, he says, will doubt whether we are Phrenologists at all, whether we do not mean, ultimately, to upset the science altogether. He particularly objects to our opinions on the subject of small heads, and small foreheads, As we are at the commencement of our eareer, we shall give our correspondent a more serious answer than might otherwise be needed.

If there really be any of our readers who can doubt our belief in Phrenology, they must be very unreasonable. To take charge of a Phrenological Journal with the intention of upsetting Phrenology, would be rather a novel mode of doing business. As a pecuniary speculation, more especially, it would be quite an original and brilliant idea. Besides, not only have we continually expressed our belief in Phrenology, but almost every article that has appeared from us on the subject, necessarily pre-supposes, not merely its fundamental, but even its general truth. All that the most captious can justly charge us with, is, that we have freely spoken of the numerous imperfections, as well as positive errors, which, to us, appear to have been mingled with it. We should really like to know what other course would be consistent with the advance of Science, or the real interests of our readers—

to say nothing of personal principle. In our present position, it is our business to advocate, to the utmost of our power, all that appears true, in connection with this science; to lay bare any error we can find in it, to wage war with every innovation that does not bear the stamp of truth, and to support, at all risks, every novelty that does. This is clearly our duty, and this duty we shall endeavour to fulfil. If, by so doing, we should displease any of our readers, we shall be sorry, but it is they who will be unreasonable. They will be displeased by that for which we merit their commendation.

We have lent no countenance to the vulgar error, which supposes that phrenologists are the only persons competent to speak upon mental phenomena; neither shall we flatter any other of the prejudices that have crept, or may creep into any section of our body. We are not unaware of the prudential considerations that are involved in this course, but we have no notion of sacrificing principle to prudence. After all, we cannot bring ourselves to believe, that there is one, amongst our numerous readers, who will not, upon a moment's reflection, approve of this course; but were the case ever so much the reverse, there is no other that we can think of pursuing.

Again: if the new doctrines we have announced, be deemed false, why does not our correspondent or some one else, attack them, and shew their fallacy. He is aware, all our readers must be aware, that our pages are most fully open to them: we have again and again invited discussion: there is not, we are sure, in the whole empire, a journal that offers greater facilities for discussion, or in which an opponent may expect to be treated with more candour or liberality. Why, then, are not these very dangerous doctrines of our's boldly met, and criticised? Nothing would better please us than to have them ably attacked, since we feel no interest whatever in them, except in as far as they are true. Indeed, those who think we are likely to inflict any—the least injury on Phrenology, are bound to oppose us openly, since they must be aware that their silence will be, in some degree, a sanction of our errors. They must also be aware that a journalist, however moderate his powers, must have considerable influence with a large portion of his readers. It is not in the nature of things that we should be arguing from week to week, unopposed, and not make converts to our opinions. It is their duty, therefore, to step forward.—There are, we dare say, many of our readers who do not exactly agree with some of our positions, but who, nevertheless, forbear any direct opposition, until our views have been more fully presented to them. This is altogether another affair. It is not to such as these, that our remarks refer, but to those who would have us alter our course, without attempting to prove to us, that that course is wrong.

Our correspondent says that he does not believe that Sir Isaac Newton was a man of such great intellectual power as we are disposed to fancy. Very well, let him maintain that position, and we shall be most happy to join issue with him. He must be aware that we have no need of apologizing for our opinions, in this case, at least, since they are the opinions of every man capable of judging of the matter, "saving and except" some phrenologists.

Our correspondent says further, that he does not believe that Newton had a small forehead, nor Lord Brougham either. Aye, that's another matter. By all means, let us have the proof. We have no especial interest in showing that they had. We have not maintained that they were great *because* they had small foreheads, but simply that they were great *notwithstanding* that fact. We have seen their masks: let it be shewn that those masks are inaccurate, or that we have inaccurately measured them, and of course the affair will be, so far, set at rest; and we shall have lost two powerful arguments: which, by the bye, we can well afford, as we have a host of others in reserve.

As to our ethnological notions, we need say very little. If the objection is merely to our particular opinions, or to our manner of supporting them, we have nothing to complain of; but, if it be contended that the subject itself—that the questions we have broached are uninteresting, or unimportant, we must beg entirely to differ. The questions are of the highest—of vital importance to Phrenology; practical Phrenology will never become perfect, until ethnology becomes a science, and one far advanced also. This study does not yield in interest or in extent, even to geology itself—the latest and most captivating of the sciences; while in real importance, it immeasurably transcends it. It is as much superior to geology, as man is superior to other animals. It is, indeed, in a variety of respects, a counterpart of geology. It is to the moral, what geology is to the physical world—the history of its revolutions and destructions,

and renovations. The ethnologist has his extinct races, and his moral strata, and his eruptions and conflagrations &c., and he is enabled, from the few relics which the past has left, to re-construct ancient worlds; but, more than all, his science enables him fully to understand the world which exists. All this, is surely no trifling matter.

We have given this degree of prominence to the objections of our correspondent, rather for the sake of *preventing* misunderstanding, than from any idea of the immediate necessity of such explanations. We cannot believe that many of our readers entertain his apprehensions, and we can assure him that they are entirely groundless; and of this, he will have abundant evidence by and by.

Is great mathematical talent consistent with moderate intellectual power generally? The affirmative is maintaine dby many phrenologists. It has, we believe, been solely suggested by the fact, that many eminent mathematicians have had moderate or small foreheads. Let us see if this opinion will stand the test of investigation.

Is the study of the mathematics chiefly an affair of what are termed the perceptive faculties, or does it mainly depend on the higher reasoning powers? This is what we have first to consider. The organs to which phrenologists have attached the term perceptive, are believed to produce various kinds of perception and memory; to be, consequently, necessary to the process of reasoning, but still not to be the reasoning powers. There are comparison, causality, and, according to some, wit. The other organs supply the materials for reasoning, these reason. So the story goes.

Now, is geometry an affair of simple perception chiefly, or of reasoning? No one, we presume, who knows what geometry is, can have the least difficulty in answering this question. Some degree of perceptive power is evidently indispensable; we must be able to keep with tolerable clearness before the mind, gradations of form, and size, and position, numbers, &c.; and we must have a tolerable recollection of such things; but it must be evident, after all, that reasoning is, comparatively, every thing in the process. It must be evident that, with the most moderate degree of perceptive power—such as is possessed by the least gifted of men, idiots excepted, and great reasoning power, a proposition in geometry may be perfectly and easily demonstrated. But then, on the other hand, if these organs are feeble, it will be painful to have them continuously and vividly exercised, and therefore a person so constituted, however great his reasoning powers, will not be apt to have much recourse to this mode of exercising them, because it would be painful for him to have his mind habitually and intently fixed upon angles, and curves, and such like matters. This is the reason why those who delight in mathematics are found to possess vigorous perceptive powers. It is not that a very moderate share of such powers is not abundantly sufficient for any individual effort of demonstration, but simply that it is not sufficient to make the *habit* of these demonstrations delightful.

But let us examine a little more in detail what the science of geometry is. First, we have a series of definitions, appealing as well to the perceptive, as to the reflective faculties, and then are laid down certain axioms—fundamental and self-evident truths, on which the whole of our after reasoning is to be founded. These are the special objects of the reflective faculties, and they require for their perception and application the vivid exercise of those powers. Next, a few postulates are announced, and these also especially appeal to our reason. All this being premised, we proceed to some demonstration. For instance, it is asserted, that if two right lines meet each other so as to form two angles, these angles, taken together, will be equal to two right angles. Now, in this statement, there is involved the perception of two or three simple lines, and as many angles; this is nearly all that the lower faculties have to meddle with, but this is a mere fraction of what is to be done. There must now follow an elaborate process of argument, concentrated, concise, rigorous, clear, unexceptionable—every step being self-evident from what has preceded. In a word, this process must be, in its kind, one of the highest and most perfect specimens of human reasoning. Well then, the proposition being finally demonstrated, the mind is entirely satisfied in respect to it, and it consequently assumes, at once, all the authority of an axiom, and is ever after used as such. In the course of this demonstration, some other proposition requiring proof has occurred to the mind, a new statement is made, and a similar process of argument gone through. And thus the geometrician proceeds step by step, adding truth to truth, till, ultimately, the most distant, profound, and apparently unattainable results are produced.

Now, is it much, or is it little reasoning power that is required in order to pursue successfully the above course? To answer this question satisfactorily we must bear in mind that there are two classes of geometricians—those who invent, and those who merely learn. The latter certainly do not require any extraordinary power of reasoning. They require good perceptive powers, and good memory, otherwise they would not have the fondness for the pursuit, as we have already explained. They require a reasoning tendency, perseverance, and concentration, and reflective powers of at least considerable force, else they could not possibly bear the continued strain upon them. This must be evident according to all the principles of phrenology, and organology generally. This considerable force would not be indispensable for any single demonstration, or for an occasional mathematical effort, for this a very moderate degree of power might be abundantly sufficient: but to support such vivid mental efforts, hour after hour, and day by day, it is evident that a vigorous organization is indispensable. Still, the task of the learner is comparatively simple. It is merely to understand and to remember what others have done. There is a proposition before him, but, if it presents any difficulty, there is also before him an elaborate demonstration of it, to which he may refer. It is not, therefore, requisite that he should have much originality, or grasp of mind. It is not requisite that he should be great in any respect, but it is requisite that he should have good reasoning powers, powers that will bear hard work. It is absurd to talk of a man of feeble organization being anything of a geometrician. We speak not of schoolboy exercises, of those who study geometry because they are obliged to study it, or of those who having studied it at school, keep up their knowledge by an occasional reference to their books, and upon the strength of the practise fancy themselves mathematicians, and perhaps imagine that they would have done wonders had they devoted themselves more earnestly to the study. It is not such as these we mean by mathematicians, but such persons as take up the study simply because they like it, and devote themselves to it, day by day, because they prefer it to other occupations. These we maintain must have vigorous reflective faculties, let their foreheads, be large or let them be small, and yet these are but the mere herd of geometricians. *A fortiori* then must the men of original minds, the men of genius, the master spirits have powerful reflective faculties. See what they have to do. A proposition is stated, as before observed: the demonstration depends wholly on themselves. How do they proceed? They immediately call before their minds all their knowledge that has reference to the case in question. They select, reject, arrange: the whole mind, at one time, concentrated with intense energy on the materials before it, at another, stretching itself out to the utmost boundaries of thought, looking with intense gaze into infinitude—as the anxious mariner strains his eyes to catch a glimpse of some wished for coast, and thus continuing an almost fearful process, till some lightning flash crosses the darkness, and the world is startled with some great truth.

Let any one who wishes to have an idea of the strain which the mind bears in such a process, try to repeat it himself, and then see if it is a feeble organization that is needed to bear such action, not once, nor twice, nor occasionally, but habitually. Or, let him interrogate these persons, and perhaps he will be told, that in their intense thought they sometimes seem to feel even the physical straining of the mental organs.

Again, who is it that possesses the greatest power where discovery is needed? He, of course, who possesses the greatest knowledge of the kind required, and the best capacity for employing it. What is knowledge? Memory. Great memory then is indispensible to a great discoverer. Now what kind of memory is chiefly requisite for the great geometrician? That kind surely which corresponds to the perceptions chiefly requisite, and these we have seen to be those of the higher faculties. It is not the memory of angles, and lines, and surfaces, and solids, that is chiefly needed, but that of dependencies and relations, of causes, effects, resemblances, differences, analogies, &c., and all these memories depend on the higher intellectual faculties—on the reasoning powers, as they have been termed. Now, powerful memory is the highest manifestation of the intellectual organs. He who possesses this memory must of *necessity* have the corresponding organs proportionally vigorous, and efficient. The great mathematician must, *necessarily*, possess such memory, and such organization, and yet he is often found with these very organs in moderate or even small development, his head being compared with those of the generality of of intelligent men! What then are we to think of the principle laid down by phrenolo-

gists, that the manifestation of great power requires a large organization, reference being had to a given standard? Besides, we are told that every organ seeks gratification in proportion to its energy, the chief element in energy being size. We are told, in a thousand different forms that a tendency to be reasoning, to be seeking for causes and effects, tracing analogies, &c. &c. is a consequence of a large and active organization. But here is a set of small organs, accompanied, nevertheless, with an irresistible tendency to all this, and furthermore, with vivid perception, great memory, profound judgement, and brilliant genius. What does all this mean?

Finally: we ask, in what consists the essential difference between the great mathematician and the great lawyer, or statesman, or natural philosopher? Does it consist chiefly in the faculties employed, or in the objects to which the attention is directed? Can there be any doubt about answering this question? We have but one set of intellectual faculties, and the geometrician requires the aid of every one of them, in almost every demonstration. The higher powers, especially, are equally needed by every one of them. All reasoning ultimately resolves itself into the observing of facts, and the tracing of their relations. One organ may be a little more requisite for one person, and another for another, but in all high reasoning, the reflective faculties are mainly needed. Is there any higher reasoning than geometrical reasoning? Is it not the very perfection of reasoning? We are ready to admit, that, in proportion to the multiplicity of ideas that require to be kept before the mind, in a process of reasoning, so should the reflective faculties be relatively larger, and that therefore the development of their organs, which would be abundantly sufficient for the mere mathematician, might not be quite sufficient to constitute the highest metaphysician. But, then again, the latter will have a corresponding drawback in some of the perceptive powers, so that in the mass of intellect there may be slight difference between them. But after all, the question is not whether these mathematicians need the very largest grasp of mind, but simply whether they need reasoning powers of a high order. To us, it appears absurd to the very last degree of absurdity, to deny that they do require such powers. If, as we have said elsewhere, the phrenologist cannot reconcile his theories to the infinitude of of facts and reasonings which prove that great intellectual power, general and special, is indispensable to the great mathematician, and that the great mathematician is sometimes found, with what, relatively speaking, is a small forehead, why, the phrenologist must just change his theories—that is all.*

With all humility, we submit this argument, praying that those whose opinions we are contesting, and who may not be satisfied with it, will vouchsafe to point out its weakness, and thus prevent others from being led astray, and guide us back into the paths of rectitude.

CORRESPONDENCE.

To the Editor of the People's Phrenological Journal.

Sir,---I beg leave to state a fact or two, in confirmation of those "Communicated by the late Editor," in the last number.

I first had a lady entranced by another lady, neither of whom know a jot of Phrenology. I then tried the organs of the *Mesmeriser* while in communication with the mesmerised—*Wit* first, which was responded to, with a laugh as joyous as could be wished--next *Destructiveness*. In an instant, the patient started to her feet, with a fierceness that so much alarmed the Mesmerizer, that I had great difficulty in keeping the communication: however, Destructiveness was instantly subdued, by exciting *Benevolence*.

The Mesmeriser continuing very ill, from the shock, I was glad to get the lady awakened, and so ended the experiment.

This, I think, strengthens the *mesmeric facts*. *Will* could have nothing to do with it. Here is a lady, totally unacquainted with Phrenology---in fact, purposely kept so---and I did my best to *will* it *not* to take effect. Now the "late Editor," being learned in Phrenology, must, to a certain extent, have known what organs were being excited, and consequently could influence the patient, supposing *Will* had anything to do with it, which I think disproved, as far as my experiment goes.

I have the honor to be, Sir,
Your obedient Servant,
T. Purland.

59, *Mortimer Street, Dec. 5th*, 1843.

To the Editor of the People's Phrenological Journal.

Sir,---Having heard all Dr. Keenan's lectures since he came to London, on the lungs, considered as a galvanic battery, and having also read the two letters of N. O. N., in your Journal, No. 41, and 42, I beg to make the following observation, in reply to his objections and his apparent misunderstandings, relative to the two lectures referred to by him, delivered by Dr. Keenan. Your Correspondent says, Page 11, "That the gentleman held up his arm, and said, that the motion was

* For further explanations on this point, we must, for the present, refer our readers to what we have said upon it, in Nos. 18, 19, & 20, of the Journal.

up his arm, and said, that the motion was the result of the oxydation which was affected by the air of the food he had taken, it did not appear to us, why, if such is the fact, so long as there is food in the stomach, and air to oxydize it, why the arm, and other parts of the system, are not kept in motion." The answer to this objection is, that the food is not oxydised in the stomach, but digested in the stomach, and oxydised in the lungs, or respiratory system, and that while the motion of the arm is affected by breathing, yet this force does not so affect it, till it is first stored up in the anterior columns of the spinal marrow, and from thence drawn, at the will of the person, to cause the motions of relation, or those of animal life. The facts stated by the Doctor, in regard to persons having lost their limbs, becoming afterwards more spirited and cheerful, as well as quicker in thought, may be learned by an interview with the Greenwich and Chelsea pensioners.

Your Correspondent expresses his next dissent thus, "The Lecturer, quite as easily in his opinion, no doubt, cleared up all the mystery about clairvoyance and supersentiency, which so few have seen or believe." As what the Doctor proposed was not an exhibition of the fact of clairvoyance, but the rationale of the fact, assuming it to be such, it is easy to see why your Correspondent should not be satisfied with the explanation, when he did not believe there was a fact to be explained. In order to shew the general nature of clairvoyance and supersentiency, Dr. Keenan drew attention to the effects of bad food and seclusion from air and light, which are well known to induce supersensation, by altering the condition of nervous influence, as in the case of Gaspar Hauser, (whether a real or imaginary character) this person, from such causes, becoming sensible of a dragging power when a magnet was presented to his abdomen. As another step in elucidation of clairvoyance, it was remarked, that, to produce the phenomenon, it was not necessary to do anything but imitate nature, in her making part of the nervous expanse, the retina of the eye, so delicate and sensitive as to be cognisant of the rays of light, and that there was nothing absurd, nay, even impossible, in supposing that such an alteration of the superficial nerves of the body, could be artificially produced, as would render them cognisant of an external electric medium, and through that medium, of a distant object. The full explanation of clairvoyance would require a great deal of space, but the preceding remarks will suggest the manner in which the explanation is to be arrived at, and will probably have some weight with those who, like myself, have seen a female brought into a state, in which she could not open her eyes, by another passing his hands before her face and abdomen, while along with the immobility of the eyes, the lady instantly told that she felt something pulling at her back, as a third person slyly, and without her knowledge, in the common way, held his hands at a little distance from her spine.

As to the Doctor '*not proving* Phreno-Magnetism to be a *delusion*, it was because the gentleman who promised to procure the patients, did not bring them, and there was therefore, no opportunity---one nervous patient (who had been operated upon before) being objected to by the Doctor, as indecisive of the question, and only allowed as matter of amusement to the company. However, the Doctor's statement, that the manifestation could be produced by touching any part of the body, has been already proved by two surgeons in Manchester---Dunn and Catlow, as well as by Collyer of America, as related in your Journal, p. 41, in which he states, "another peculiar state of the recipient, is, that he will always respond to his own previous knowledge of the location of the organs. I have seen operators excite the faculties of the mind in their recipients, by touching a portion of the head, not agreeing with the location of the phrenological organs, &c.: in fact, the organs may be located, as far as producing the manifestation is concerned, in any part of the body. I have produced Veneration, Combativeness, &c., by touching the elbow, knee, chin, &c." I would ask your Correspondent N. O. N., if this is not what the Doctor himself affirmed in his lecture, and would beg also to refer him to Mr. Merryweather's interesting article in your Journal, p. 42, who states, "we generally find persons of good intellectual powers, make much better mesmerisers than patients, which, I am inclined to think, is on account of the voltaic battery of one being more powerful, and more highly charged than that of the other." An opinion, the same as the Doctor's, that the best mesmerisers were persons with large chests, except that Mr. Merryweather does not appear to be aware that the *lungs*, and *not the brain*, are the galvanic battery as discovered by Dr. Keenan.

Your's obediently,

M. Tennant.

2, *Warwick Street, Regent Street.*

To the Editor of the People's Phrenological Journal.

Mr. Editor,—I doubt not but that the great pleasure I experienced in perusing the very explicit declaration of your views relative to mesmerism, contained in the last number of the "People's Phrenological Journal," is largely participated by a numerous class of your readers, and if my letter, which appears in the same number of the journal, contributed in the least degree towards eliciting that most unequivocal declaration in favour of the yet undeveloped science of mesmerism, I shall feel amply remunerated for the trouble. Notwithstanding this, in accordance with your invitation, I feel desirous of offering a few comments on several points contained in the article above alluded to. In the first place, I would just remark that facts are, and must ever be, the foundation of all knowledge. Facts of necessity precede opinions, opinions theories, and theories argument. * So that, according to my views, argument, which you con-

* Our correspondent is somewhat in error here. Where the inference from a fact is not primary

sider so desirable, is the last ingredient required in extending the boundaries of our present knowledge; and though a most important and valuable article, it is only required in collecting facts from our previous knowledge, and in adducing evidence in support of certain views, opinions, and theories. Now the fact is very few experimenters, in any department of mesmeric phenomina, have advanced opinions or theories with any degree of confidence, so as to require from them any very lengthy argument in support of their views, all agreeing that the subject is at present so little known or understood, and the phenomina apparently so contradictory in themselves as to baffle all attempts at discovering by what fixed laws the phenomena are governed. * Yet, notwithstanding this difficulty (a difficulty which of necessity must ever meet every new science, seeing we can only reason from what we know; and our previous knowledge may be of a nature very inadequate to throw the least degree of light on the new class of facts). We ought not to be prohibited from collecting and arranging, in the best order we can, the materials we are in possession of until other facts are supplied and a new order of things is established, which mode, will greatly facilitate our ultimate attainment of truth. And that we shall be able to support our views of mesmerism (so far as they go) by no inconsiderable share of argument, I have no hesitation in saying. Your first, and apparently strongest objection, and that on which you appear to lay the greatest weight, is the multiplicity of the newly-discovered organs. Whether your objection applies more especially to the nomenclature than to the organs themselves, is not very clear. † If it is to the nomenclature, I believe few, very few indeed, will be inclined to advance much argument on this point, but will generally say "it will serve the purpose very well until a better be found," which to me is a sufficient reason for continuing it in use. But if your objections apply to the organs themselves, we are willing to join issue with you and offer the best condensed arguments we can in support of our views by first starting from the point to which you have yourself arrived in phreno-mesmerism. You therefore, to a certain extent, being a phreno-mesmerist, and consequently believing the possibility of exciting the cerebral organs by contact and otherwise I beg to ask if you belive that you are exciting the brain, and eliciting the appropriate mental manifestation, when you apply an excitant to any of the old phrenological organs and you find the manifestatation to vary as you vary the situation of the excitant—if you believe this much and thus far, how will you explain the fact that, as the more minute experimenter, in mesmeric phrenomena, varies the position of his excitant to every eighth, or may be to every sixteenth of an inch, a totally different and distinct mental manifestation is educed? Now, if this is not to be considered evidence of the existence of separate cerebral organs, whose function it is to generate this distinct, class of ideas, I should wish to know by what line of argument can you prove the existence of the larger divisions or organs of the old phrenologists? Will they not have to stand or fall together? If you should object to this mode of argument, you will unavoidably fall into the position of a certain description of anti-phrenologists, who admit the three grand divisions of the brain, but who see no sense in this mapping out of the head into so many smaller compartments.* I conceive myself that the larger divisions, or organs of the old phrenologists, are nothing more than the classification of a certain description of mental ideas, or feelings, bearing a close resemblance to each other, yet distinct and distinguishable to a close observer. The careful experimenter in phreno-mesmerism, is like the modern chemists with their new and more powerful solvents, increasing the number of primitive elementary principles ten, or may be a hundred fold; and it would be extremely absurd even in them to suppose they are now to remain where they are—that all further progresssion is to be prohibited—that the ultimatum of truth is attained, and all further discovery at an end. And if this be absurd

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and self-evident, there must always take place, in the observer's mind, a process of argument, more or less complete, before he can possibly form an opinion. As a general rule, then, argument in some shape or other, always precedes opinions and theories; and therefore, when any one offers his opinions or theories, he should give the reasons that induced him to adopt them. A *proper* statement of these reasons will involve the argument of which there is question.—Ed.

* We differ again with Mr. Jones. Mere mesmerists may not have insisted much on mesmeric theories, and explanations of phenomena, but phre-mesmerists, have, for the most part, announced their particular views, with boundless confidence. Many of them have spoken, as if their organs were proved beyond the possibility of a doubt.—Ed.

† Our objections apply to the nomenclature, to the organs, to their functions, and, in fact, speaking generally, to everything belonging to them.—Ed.

* We are glad to find our correspondent "arguing" on this matter; and we wish that more of the phreno-mesmerists would come forward and defend their respective opinions with the same spirit and candour. We entirely concur with him in the above argument; he has but anticipated us in its announcement. We have not yet seriously attacked phreno-mesmerism; we have merely skirmished a little around its outposts. But we shall come down upon it some of these days with all the forces we can muster. Our correspondent has partly misunderstood us. We believe that the brain may be excited mesmerically, sometimes through the agency of the will of the mesmerizer; sometimes by means of his thoughts, and previous knowledge only, without his willing, or even contrary to his willing; sometimes through the previous knowledge of the patient; and we are inclined to believe also, that the affects are sometimes, though rarely, produced solely by mere mesmeric contact, or pointing, without any mental communication between the patient and the operator, or any other parties present, and without the patient knowing the part operated upon. We also believe that the manifestations will *usually* have some relation to the particular organs touched, but not always. Finally, we believe that the phenomena present so much complexity, so may irregularities, and so many utter contradictions, that, in the present state of our knowledge, neither the existence, nor functions of any organ *old* or *new* can be *proved, or even rendered highly probable*, by mesmeric means only. Still we think phreno-mesmeric experiments of the greatest interest, and of great utility also. And they ought to be carefully recorded.—Ed.

in the chemist, it is equally so in the phrenologist. While advocating these views, I am quite aware that those who believe in negative organs, will endeavour to put in their claim for a share in the benefit to be derived from this argument. But my opinion in reference to the negative theory is, that if by moving your excitant over the least imaginable space, you elicit a direct negative to what had just preceded, you must then be exciting the same organ, but differently effected, and consequently an opposite mental feeling is evinced; just as the arms or legs may be thrown into different postures, some agreable and pleasant, others disagreable and painful.

What I have so far advanced, I hope may induce you to take, at least, a more favourable view of the so-called new organs. In connection with this subject, and just at the very moment when calling on us for argument, it is somewhat singular to find the late Editor busily indulging in broad assertion. In his "Report of Mesmeric Facts," he says, "the deduction to be drawn from these facts, and which it is considered are particularly worthy of notice, is, that it is not by suggestion or will that the feelings are excited in *a* mesmeric patient." Now, had he, instead of using the indefinite article (a), employed the demonstrative pronoun (this), we should have no such reason to complain; but in the way it is expressed, it is tantamount to charging others with deliberate falsehood, who declare they have successfully employed other methods, as well as the one here named.* This may be considered by some to be hypercritical, but when it is recollected what unprofitable disputes and wrangling it has caused among experimenters, it is very obvious how desirable it is that such a practice or mode of expression should be discontinued, as there is already abundant proof that there are several different ways whereby the feelings may be excited; and it is only left to the careful experimenter to observe to which of these methods a given patient is the most subordinate. No one presuming to do more than simply record the facts as they have occurred to themselves, until we shall be able to collect, arrange, and methodise the (at present) apparently heterogeneous materials into one harmonious whole. Nevertheless, the experiments related by the "late Editor," are of themselves sufficient to sound the last funeral dirge of Dr. Collyer's anti-phreno-mesmeric opinions.†

Before closing this letter, there is another error too prevalent among phrenologists, to which I beg to direct your attention, in the hope that the fallacy (which I deem it to be) may be corrected. It is that of objecting to the existence of any newly discovered organ, simply on the grounds of its situation not according with their notions of harmony or fitness. I will give you an instance in the case of the "marriage organ." But how unwittingly do this class of phrenologists fall into the errors of the ancient would-be phrenologists, who vainly attempted to rear up a system of phrenology, according to their own false ideas of the most fitting locality for the several sensations and feelings, instead of (like the great founder of the present system) appealing to nature and wisely following where she directs. The fate of the former method, I should have expected would have been too well known for it to have been again resussitated in the present age. This theory of arranging the organs into harmonious groups I consider false in principle, false in philosophy, and not to be found in nature. How very easy is it for an individual with large comparison, to draw out a parallel—to show an agreement, analogy, or similarity between the most incongruous materials where the most distinct, differential characteristics are known to exist. I will give you a few words by way of example in reference to the marriage organ. That an individual entering into the marriage state should enjoy the highest attainable happiness the object of his choice should be capable of absorbing or gratifying his whole mental nature, to the exclusion of none. Therefore, a marriage contracted exclusively for the gratification of the affective feelings, is debased, while, on the other hand, if purely intellectual, it is dry and insipid. So that the marriage organ ought not to be placed in the midst of either of these two classes of organs, lest marriage be induced from either exclusively. Where, then (it may be asked), ought it to be situated? I should answer, just where it is, midway between a point from whence the three great divisions of the brain diverge to their respective regions, equally participating in each. The fulcrum of the anterior and posterior lobes holding both equally poised, while crowned above by the whole mass of of the moral region. I have already so far exceeded my intended limits, or much more might be said on what may be aptly styled the "want of harmony argument," but I hope enough has been said to check this erronious principle in searching after nature's hidden things.*

Yours, very respectfully,

ROBERT JONES.

To the Editor of the People's Phrenological Journal.

PRESTON'S PERFECT CRANIOMETER.

SIR,—What I have said on the subject of Mr. Jones's Craniometer, though it is very little, seems to meet with approbation as far as it goes, but now I shall strive to make it perfect, and so completely set aside all the difficulties you have proposed, and more than you have even hinted at, or, I believe, than you have thought of. In Mr. Jones's instrument, the bulbs that go into the ears, let them be of what shape they may, though, as he has shewn them, they are of

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* We really cannot see anything calling for censure in this case. The gentleman alluded to merely stakes his own conviction in the most ordinary manner. Persons need not always be using the terms, I think, I believe, it is my opinion, &c. These are usually understood, where there is no obtrusive positiveness manifested.—ED.

† I am happy to learn, since Dr. Collyer's return to Liverpool, that he has renounced, in the most decided terms, all his anti-phreno-mesmeric opinions; a fact which ought to receive all the publicity possible.

[Not all. He merely admits *now*, that the organs are *sometimes* excited by *mere* contact.]—ED.

* We cannot agree in condemning what is here termed an error. The argument of locality is, in our opinion, most important, and connected with the very foundations of phrenology, though, like every other argument, it may be injudiciously used.—ED.

a good shape, whether with or withour screws, they would evidently render the patient deaf for the time of the operation, which is very disagreeable to both manipulator and patient; but on the plan I am going to propose, that will not be the case, and it will be perfectly steady relatively to the head, and nearly impossible to slip in any direction, neither will the elasticity of the ears be any impediment to its perfect action.

So without any further preface, I shall say—make a brass circle, about 10 inches inside diameter, and sufficiently strong to be perfectly inflexible, and at two opposite points to be a little higher than the body of the circle; this circle passes round the head a little below the orifice of the ears, so as to pass below all the organs; the two parts, or elevations at opposite points of the circle to correspond with F. F. of Mr. Jones's Craniometer, and through which Mr. Jones's slides F. F. are to pass, through a tube whose exterior is circular, on which Mr. Jones's semicircle will turn without interruption to the bulbs. From the part of the circle which passes over the bridge of the nose to the part at the back of the head, below the tentorium, another circular piece of brass passes, which will be more than a semicircle, and made firm to the circle, so as to pass exactly over the suture which divides the hemispheres of the brain, and to be divided into degrees, commencing the divisions at the back of the head, below the organ of Amativeness, and continued over the head to the bridge of the nose, below the organ of Form, which will contain above 200 degrees; thus Mr. Jones's semicircle cutting the circular arch, will shew the number of degrees from the commencement of the divisions at the back of the head; and Mr. Jones's semicircle being divided into degrees, the best way would be to commence the divisions from the slides F. F., and end at 90 degrees at the suture, with two shoulders of brass, one at each side of the circular arch. Thus, with a very little knowledge of spheral trigonometry—when great exactness is required—the length and breadth of each organ will be ascertained in degrees, and may be reduced into inches, and parts of an inch; and thus, considering the organ to be a cone, whose apex is at the centre of the brain, the solid contents in inches will be ascertained, and hence the relative bulk.

The next thing is to show how to make the instrument fast to the head, without incommoding that tender organ, the ear. Suppose that inside the circle of brass from the part just in front of the ear, there be attached a piece of brass in a circular form, to correspond to the brass circle which may act as a spring, and come so far forward on each side as to clasp the cheek bones, with a screw through the brass circle to press it to the head, the ends of these attached pieces being lined with some kind of soft leather to prevent them from hurting the face; and two other similar pieces of brass attached, and proceeding backward from behind the ear to the back of the neck below the tentorium, held there, in the same manner, by two other screws pressing them to the back of the neck; thus the instrument will be made perfectly fast to the head, when the bulbs may be withdrawn from the ears, as they are of no use but to adjust by.

Thus, I think, I have obviated all your objections, except the one of time to perform the operation; but as I do not expect the instrument to be used at each manipulation, only of the largest and smallest heads, to get the maximum and minimum of each particular age and sex, or where exactness may be required for recording particulars.

Phreno-mesmerism I consider to be entirely useless, either to tyros or to perfect a scale of sizes that may be of general use to both beginners and proficients; yet Mesmerism I believe to be of great use in its own sphere—that is in the aleviation and cure of disease; but to pretend to discover innumerable organs, it is no better than complete nonsense. If any of the mesmerisers in, or near Oldham, would take the trouble to come to No. 1, Portland Street, near Royton Street, Oldham, or send me word, that I might attend upon them, and by the means of mesmerism, cure me of what is termed an incurable complaint, under which I am labouring, it would be a greater laurel to themselves and to Mesmerism than all their imaginary new organs, for which I would give them my best thanks, with liberty to publish the miracle; and I will likewise, with permission of the Editor of the "People's Phrenological Journal," make it public under my own signature.

Yours, very respectfully,
EDWARD PRESTON.

Oldham, Dec. 7, 1843.

[Mr. Preston's letter was received too late to allow of our passing any opinion on his invention. We fancy the Phreno-Mesmerists will be too little satisfied with him to think of working a "miracle" in his favour.]—ED.

SOME NOTES UPON THE HEREDITARY TENDENCY TO MENTAL DISEASE.*

BY W. A. F. BROWNE, M.D.

Superintendent of the Crichton Institution for the Insane.

"Whoever has brought himself to consider a disease of the brain as differing only in degree from a disease of the lungs, has robbed it of that mysterious horror, which forms its chief malignity."—*Sir James Mackintosh's Letter to the Rev. Robert Hall on his Recovery from Insanity*;—Mem. vol. i. p. 369.

THE purposes of the following observations, are to divest the subject of predisposition of all that mystery with which it has been invested; to give a fixed and definite meaning and value to the vague and fluctuating explanations which have

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* Our attention having been called to the above interesting paper, which has already appeared in the Quarterly Phrenological Journal, we have much pleasure in giving it entire, as well for its own merits, as for its connection with questions at present occupying the attention of our readers.—ED.

been offered; and to shew that it depends upon the physical structure of the brain and nervous system, and may, like other diseased states, whether of excess or deficiency, be met or ameliorated by treatment and training, and education founded upon correct physiological principles. It is not suspected that in the term hereditary taint or tendency to mental disease, is contained the tacit but unequivocal acknowledgement of an important phrenological truth. The transmission of this predisposition from parent to child, and from generation to generation, can depend only upon the transmission of certain forms and peculiarities of organization, upon the descent of some defect or deformity of the nervous structure, or of some condition incompatible with the preservation of mental health under certain circumstances and at certain ages; a proposition which amounts to this—that parents possessing heads below the ordinary standard, or of the idiotic type, communicate to their offspring an organization of a similar character; that parents, either with brains of vicious conformation, or with brains so excitable by states of the body, or impressions from without, as to be liable to, or actually labouring under disease of the brain, are followed by descendants endowed with similar constitutional peculiarities. The recognition of such a law, is not confined to men of science. It is universal---it is part of the traditionary knowledge of the vulgar, and is one of those truths developed by the experience of ages, and gathered from those family histories and domestic tragedies, which are preserved better, and furnish more ample materials for thought among the uneducated, than the histories or calamities of nations. The ideas and opinions associated with this general belief, are, as might be expected, vague, exaggerated and superstitious. The taint, supposed to originate in the direct vengeance of an offended Deity, is conjectured to run in the blood, or is held to amount to demoniac possession; and upon such premises, are founded theories, which it would be difficult, and might be dangerous, to discuss. But the errors of the simple are often exceeded by those of the wise, and many of those wild conjectures may be traced to the threshold, and even within the walls of the temples of some of the systems of most pretension and sway. Sometimes they re-appear in a more monstrous form: of this, there is illustration in the fact that some pathologists suppose that insanity is transmitted as a disease---that there exists not merely a tendency or increased liability in the progeny of the insane, to mental disease, but that the disease itself is propagated, is actually incorporated with the system, lurks in every thought, and throbs in every pulse. This doctrine will not bear investigation. There is no evidence whatever that nervous disease, is, as a disease, transmitted or transmissible. The truth appears to be, that certain forms of body expose individuals to attacks of apoplexy, and certain forms of head and conditions of brain, expose other individuals to attacks of mental derangement. But peculiar circumstances are necessary in both cases to subject those so predisposed to actual disease, or, in other words, to develope the taint. They may live for years in perfect sanity, in the exercise of useful talents, and in the discharge of important duties; and should no exigency or difficulty arise, should no combination of unfortunate events occur, or should education, or moral or medical precautions, afford protection, they may escape these dangers, and retain reason unclouded and unimpaired, This involves the great truth that hereditary taint may be cured, or rather, that it may be counteracted and nullified.

Hereditary predisposition is erroneously set down as a cause of insanity. It would be as legitimate to declare small ill-developed muscles the cause of fatigue. When it is asserted, then, that so many hundred cases of madness originate in hereditary taint, the meaning is, or ought to be, that under the pressure of various circumstances which could not have affected injuriously a well-constituted system, such a number of ill formed, ill-proportioned, and ill-conditioned brains have become affected with disease. This weakness or vitiation depending upon a permanent structure, greatly augments the proclivity to relapse, when an attack of derangement has been followed by recovery. Persons so framed, go unarmed and unprotected into the conflict for sustenance, or station, or dignity, sink under every successive shock of misfortune or disappointment, and pass one-half of their lives in the cell of a madhouse. Every powerful emotion, every irregularity of diet, every act which interferes with the natural discharge of the functions of the brain, or compromises the tones and vigour of the general system, places them in jeopardy, if it do not deprive them of reason.

We deny, however, most emphatically, that mental derangement upon any occasion arises spontaneously, and independently of extraneous provocations or proximate causes; that it can, in fact, proceed directly from hereditary taint. Such predisposition may be designated a latent poison; but it is a poison with this singular property, that its deleterious influence is never experienced until the foundations of helath have been sapped by some other agent, The tendency to gout is developed by a carousal, the tendency to rhematism by the east wind; in other words, the wind and temperature act upon enfeebled or diseased, or rather upon predisposed organs. In the same way, the tendency to mental derangement, is brought into activity by excitement or misfortune, or other powerful impressions. An apparent exception exists when the tendency to derangement is produced by a want of balance between different parts of the brain:—by the great predominance, for instance, of the organs of Self-Esteem, Firmness, Acquisitiveness, and Ideality, over those of intellect, and when there is a manifestation of a character of indomitable and insufferable pride, with delusions as to the riches or titles upon which these pretensions are founded. But the truth is, that this exaggeration of the natural character, and the extravagance which consigns the individual

to the charge of the physician, can invariably be referred, if care be taken, to some unusual source of uneasiness, some extraordinary mental exertion, some tax upon the energies or sympathies, some mark of disrespect or loss of property, or some bodily ailment, which irritates and exalts the original bias into a state of unhealthy excitement.

In treating of the subject, we shall separately consider what appear to be the principal physical causes of hereditary predisposition.

1. There may be hereditary tendency from the unhealthy condition or quality of the cerebral organs, which is roused into activity by the slightest causes, and bursts forth into disease from acceleration of the circulation in fever or passion, or from the influence of internal emotions or external events.

The cretins of the Alps and cagots of the Pyrenees are examples of this, and upon a grand scale. A whole tribe of mankind participate in a congenital imperfection of structure, and are by descent imbeciles, or grope their way through the ordinary concerns of a simple and almost savage mode of life by the light and aid of some partially-developed power, some half-awakened instinct. The heads of these beings are generally of enormous dimensions, the bones distorted and deformed, the brain itself the seat of disease, and every lineament grotesque and hideous; and these characteristics are preserved age after age, accompanied by the same degradation of mind, the same stationary position in the scale of being, while the tide of civilization is surrounding and sweeping past them. These features are necessarily perpetuated, as, for obvious reasons, there is a repugnance in healthy individuals to form alliances with cretin families, as in some districts such intermarriages are strictly prohibited by law, and as the infected display a preference for each other; but that, even under such unfortunate circumstances, the limitation of the malformation or vitiation of the cranium or brain, and the effects of external circumstances, exert their ordinary influence, may be concluded from the occasional appearance of expert workmen and even artists among this benighted race, whose healthier brains, or more favoured lot, has brought them more closely into connection with the position and destiny of the enligtened portion of mankind. The history of these tribes has been traced into remote antiquity; and one of the tribes has been identified as the descendants of the Visigoths or Alans, who were defeated, dispersed, and lost sight of, in the fourth century—a lineage which would in some circumstances confer nobility, and in this indicates how long and uninterrupted the course of the hereditary predisposition may be.

The same unhealthy condition of brain is frequently transmitted through various generations of the same family, originating generally, however, in some of the ordinary causes of insanity. The original development of the taint is occasionally obscure, but its appearance is sometimes regulated aud determined by obvious laws. The offspring of those who have exhausted their moral and physical powers by excess are born tainted. Even the offspring of those in whom these energies are naturally and legitimately exhausted, and the children of individuals whose constitutions have been destroyed by disease, or climate, or age, often share the same fate. Those who have lived in and upon excitement and passion, and vivid impressions, transmit their activity without their strength. The drunkard and debauchee, the speculator, the gambler, the votary of strong desire or appetite in every shape, impart to their progeny that feverish sensibility, that craving for stimulants, or that enfeeblement of the powers, which result from such habits. Whatever, in fact, tends to exalt, or depress, or disturb the functions of the nervous system in the parent, tends to create a predisposition to mental imperfection, or irregularity, or vitiation, in the child. Even momentary affections of the parent, if intense or sudden, engender disease in the descendants. When a mother is exposed to terror, or grief, or misfortune, the mind of the child is injured by the shock; but in this case idiocy is almost always the result. When the state of the brain is unhealthy from temporary causes, such as intense application, the effects of fevers, or derangement of the greater viscera, a proneness to mental disease is communicated to the children born at that period; and from the same cause it happens, that a greater tendency to disease exists in the children born after the parents have laboured under insanity than those born previously to the attack. This is a well-ascertained fact, and shows that, even when reason is restored, the natural tone and vigour of the brain may be only partially recovered, a condition upon which necessarily depends the instability of the long convalescence which succeeds an attack of derangement, and the tendency to relapse. Whatever gives an undue activity to the brain, or even to a part of it, acts detrimentally upon the nervous system of offspring. The organization transmitted is either absolutely enfeebled, and incapable of performing its functions, or it displays the same tendency to general or local activity. This, in the case of genius, may be a boon and a blessing; but the *exclusive* activity of any organ is morbid, whether it be developed in the blaze of imagination or in fervour of sentiment, proving pernicious to the possessor, and valueless to the community. The law, however, that activity and the tendency to diseased action even of parts of the brain are transmissible, is important, and of vast range. It must influence the capabilities and happiness of every successive generation, and impress a character upon remote portions of our race. But not only is an inclination to activity of particular regions, or limited portions of the brain imparted to offspring; many circumstances lead to the conclusion, that a *special* tendency to *particular kinds* of activity may be inherited. It is well known that the young of well-trained dogs are more educable to the chase than the young of untrained dogs; the children of Indians who have been separated from their parents in infancy, with the view to

prevent the contraction of the tastes of savage life, instinctively and spontaneously prefer the pursuits of the forest and prairie, and excel their civilized companions of the same age in hunting and tracking wild animals, and in that perfection of the external senses for which their race is famous-* These children generally abandon their protectors and the advantages of society, to enjoy a mode of life of which they can know nothing from memory or experience, or from any other source but the promptings of an *inherited instinct.* The children of individuals who have cultivated languages, and spoken them correctly, are said to be easily taught this branch of education. Many examples of the reappearance in the progeny, of the very faculty for which the parents were distinguished, and which they had exercised, and cherished, and delighted in, might be quoted; but a recent number of this Journal, (No. lxvi. pp, 24, 30) contained so many instances of the hereditary activity of the organ of music in two successive generations, that it is not necessary to prosecute the inquiry. If these observations contain any truth, the influence of the state of the parent upon the offspring, and especially in communicating not only a tendency to unhealthy activity of mind, but to insanity of a particular kind, as exemplified in the monomania of intoxication, will be better understood. If the basilar region of the brain be large, and constantly and inordinately excited, we know from repeated observation that insanity, when it occurs, will present all the brutality and violence of the natural character; and we can readily believe that similar qualities, and a similar tendency to excitement and disease of that particular region, will be transmitted and reappear in the succeeding generation. If the head be small, especially in the anterior and posterior parts, and if the coronal region predominate,—where hereditary predisposition exists, we may not only predicate that the individual will fail to struggle against the obstacles which occur in every course of conduct, and fall a victim to an ill-balanced brain, but we may anticipate the amiable imbecility, the reverie or mysticism or sentimentalism, which will mark his disease, according to the relative size of the different organs. Practical men know that a large number of the inmates of asylums have variously formed and proportioned heads, and that these are types of the organization of the families to which the individuals belong; but it has not yet been propounded as a principle, that such deviation from the natural form and proportion, is the cause of the hereditary predisposition. The grotesque forms of head which are sometimes met with in chronic mania, are nowhere better seen, than in the museum of Monsieur Esquirol.

The drunkard injures and enfeebles his own nervous system, and entails mental disease upon his family. His daughters are nervous and hysterical; his sons are weak, wayward, eccentric, and sink insane under the pressure of excitement, of some unforeseen exigency, or of the ordinary calls of duty. This heritage may be the result of a ruined and diseased constitution, but is much more likely to proceed from that long-continued nervous excitement, in which pleasure was sought in the alternate exaltation of sentiment and oblivion, which exhausted and wore out the mental powers, and ultimately produced imbecility and paralysis, both attributable to disease of the substance of the brain.

(*To be Continued.*)

TO CORRESPONDENTS.

The report of Mr. Deseret's lecture on the organ of Language, was not drawn up in time for this week's Journal.

A. Lundin.---We regret that a press of matter, this week, obliges us to defer the answers we had prepared for this gentleman's enquiries. They shall certainly appear in our next number.

We have received communications from Mr. Merryweather, Mr. Donovan, Mr. Robert Jones, R. I., and Z.: they shall appear in our next.

Q. Q., Exeter---Has been received. It would be impossible for us to comply with the request. As many such may be made to us, we shall state fully the reasons for this refusal.

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A COMPLETE SYSTEM OF PHRENOLOGY.

Continued.

IDEALITY.

THIS organ was discovered by Dr. Gall, his attention was first called to this particular region of the head by observing the development of it in a friend who was noted for the composition of extemporaneous poetry. Although in other respects, he was a remarkable person, Gall describes his forehead as rising perpendicularly above the nose, then retreating and extending itself laterally, as if a part had been added on each side. He says, in other poets he did not find as a constant occurrence, the forehead thus perpendicular and then retreating, he therefore regarded this shape as accidental, but he noticed the same shape in a bust of Ovid; and in all other poets he observed the prominences in the anterior lateral parts of the head, above the temples, and regarded these natural prominences as indicative of a natural talent for poetry: but he spoke very reservedly upon the subject. He continued his observations and found the same peculiarities in Blumauer, Wilhelmine, Maisch, Madame Laroche, Angelique Kaufmann, Klopstock, Schiller, and also in Gesner, of Zurich. In Berlin, he was invited with Dr. Spurzheim, by M. Nicolai, to see a collection of about thirty busts of poets in his possession. In every one of them, the part in question was more or less a projection in proportion to the talent they had manifested in this direction. From that moment they taught that the talent for poetry depended upon a primitive faculty, and was relative to the development of a particular portion of the brain which they considered its special organ. To Dr. Spurzheim we are indebted for a more correct analysis of the faculty and its elegant and appropriate name of Ideality, "It is impossible," says he, "that poetry in general should depend on a single organ; I, therefore, think that the name used by Dr. Gall, organ of poetry, does not indicate the essential faculty. In every kind of poetry the sentiments are exalted, the expressions warm: and there must be rapture, inspiration, what is commonly called imagination, or fancy.

SITUATION OF THE ORGAN.—At the sides of the head, between wonder and constructiveness, it presents a prominence at the inferior line of the frontal bone, where are inserted the last fibres of the temporal muscle, it is a longitudinal convolution, in front of cautiousness and the back part of acquisitiveness, at the outside of wonder, and above constructiveness.

PRIMITIVE FUNCTION.—No question has been more discussed among phrenologists than what is the primitive function of this organ, and the mental quality which is proved to be in connection with this portion of the brain has been almost as variously defined as there have been philosophers and writers to attempt its description. It has been considered as man's creative power, as imagination, fancy, &c. &c. Some have said it is the faculty of invention, of creating forms which do not exist in nature; in answer to this, it is said man invents nothing, that the extent of his power is to combine what is cognisable to his senses, and to arrange them that their natural effect may be increased. We may say the extent of man's power is to embellish nature. We observe in this a tendency towards perfecting a love of the ideal. Dr.

Spurzheim's definition, if not definite and distinct enough to be quite satisfactory, is certainly the most philosophical that has been given. He says, "It is the taste, the desire for what is beautiful, and for perfection in all things." Dr. Broussais adds to this, the passion to produce what will move or excite others to admiration.

The means adopted will of course depend upon the other portions of the organization. The orator, artist, or musician, is induced by this feeling to use the powers he is endowed with to excite admiration in others, he is compelled to consider that as most likely to do so which is most pleasing to himself, to his own organization, one essays by decorating monstrosities with his ideality, another by the use of metaphors, allegories, &c.; and this is why so few succeed, because they strive to please themselves, while others, who are differently organised, do not derive pleasure from the same source.

Auxiliary Faculties.—All the faculties, in some degree, excite this feeling when it is well developed. Wonder and Imitation are its most powerful allies. Wonder especially. All the perceptive faculties aid Ideality, they afford the power or means for its gratification. Music and time are objects for ideality to exercise itself upon. The strength of the feeling is much enhanced by the nervous temperament.

Antagonist Faculties.—Reflection opposes the abuse of this faculty as it does that of all the others, but certainly aids its legitimate use, and when too large relatively to the perceptive faculties, and combined with Wonder and Ideality it completes its dreamy character. Cautiousness and Secretiveness are the declared enemies of all the emanations of Ideality, and it is also much repressed in its action by a sluggish temperament.

Manifestations.—This faculty may be considered as a semi-intellectual one; or, at least, in many cases blending so intimately with the intellectual powers, as to produce one combined effect, which is modified by the different passions and sentiments in combination. We may refer to the poetry of Byron, of Wordsworth, Cowper, Crabbe, Burns, &c., as shewing the intellectual powers, excited by Ideality to Poetry, which is modified by the predominating feelings —in Byron, his Self-Esteem, Destructiveness, &c. led to his "Darkness," "Manfred," &c.; while in Cowper the amiable feelings predominate, the social feelings in Wordsworth, and so of all the others. With painters it is the same; see Raphael's splendid powers directed by his amativeness and strong passions. Others excel only in religious subjects. The orator draws from his own passions the figures which decorated by his Ideality, arouse the passions of those he addresses; and this sympathy or magnetic action between the feelings of one man and of the thousands he addresses, is the secret of the power he wields to urge them on to scenes of daring, strife, and devastation, or to lead them back, as patient drudges home, to bear again the "oppressor's wrong and proud man's contumely," till he shall determine to end what really is but a mimic scene—one man pulling the strings which move thousands of puppets. When all shall think for themselves, then will end the game of tyrants, demagogues, cruel governors, and liberators. To produce this desirable result nothing will tend more efficiently than the proper cultivation of this faculty. When the love of the beautiful, the desire for perfection in all things is fully developed, the world is seen and regarded with totally different feelings, than when blinded to the beauties which every where surround man, he walks amid the lovely fields, the spangling daisies, and under the broad expansive firmament of high heaven, thinking only of himself, and how he shall accomplish his own objects, which, if succeeded in, generally leads only to greater want and an increase of anxious cares. Let mankind in general have an eye for the beauties of nature; let them understand that, in every step they take, there is a rich feast provided for them, if they will but enjoy the contemplation of mightier and more beautiful things, than ever was centred in the richest palace of a monarch, or hung about the walls of any Society of Arts. What painting equals the plumage of the birds, the foliage of the trees, the flowers, the sky, the water? Where can mechanism be found so perfect as in nature's works? What is there of man's production that is not copied from and inferior to its type in nature? yet the majority of men neglecting these fertile springs of knowledge, and these ever sparkling sources of the highest enjoyments, are devoted to the gratification of the sordid and lowest feelings of their nature. Did only governments understand their own interest, and that of suffering humanity, their unceasing efforts would be directed to the development of the highest elements of humanity in all, knowing it is the only way to really elevate the governed, from refractory animals to thinking men; and with this improvement would follow improvement in the arts, sciences, and every branch of industry; the social institutions would be ameliorated in proportion to the general elevation of character. The real sources of enjoyment being adopted, the false would be rejected. All that is great, good, and beautiful would become the objects of worship, while sordid, and selfish objects would be treated with more contempt than is now generally lavished on worth when unsupported by wealth, which we may say, almost as a natural consequence, is linked with vice. And yet there are some sects, and most moral ones too, which would exclude all that is beautiful from the world as merely exciting the bad feelings. Music, poetry, painting, we are told by such, are the temptations held out by the devil to lead erring man astray: they are the universal language of God to lead him to his salvation.

This faculty when too energetic, leads to unhappiness, the individual so endowed looks at things as they should be, not as they are, and they are loved through the Ideality of their admirers, and not from any real excellence in the object themselves.

(To be continued.)

MR. HUDSON LOWE ON THE INTELLECTUAL FACULTIES.

SUCCESSION—CHANGE—EVENTUALITY — ORGAN OF EVENTUALITY—REMARKS ON METHOD—ASSOCIATION.

(*Continued from page* 15.)

*(31.) Although in sections 21 to 25, I have considered the principle of succession as that which is essential in our conception of action, and also as the leading principle in the phenomena of association; and in sections 28 30, had already commenced the application of this principle, and of the idea of change to the determination of intellectual character, and to the illustration of organology, I think it advisable once more to return to the consideration and explanation of the faculty, before entering more fully into the question of its organ and its exemplification in individuals. For in fact, a clear idea of the nature of the faculty we investigate, appears to me in all cases indispensable if organology is to be anything better than mere empiricism. Without this, the clearest conceptions as to a distinct development of the brain, and even an universal agreement as to its connection with specific *actions*, yet leave room for a wide and most perplexing diversity of opinion as to the primitive tendency or faculty manifested, and consequently to the true signification of the organ in a general interpretation of character. A very full illustration of this is afforded in the case of the organ of Destructiveness. The connexion of this organ with acts of violence and homicide is a matter of general admission among phrenologists. But how far are they from being agreed as to the primitive tendency which it manifests! Dr. Gall defined it as the "instinct carnassier," and considered it as having a direct relation to the effusion of blood. Dr. Spurzheim and Mr. Combe hold it to produce the general tendency which its name indicates with regard to inanimate as well as to animate objects; Mr. Cox considers it to manifest the tendency to injure; Mr. Hewett Watson, the tendency to attack;† Mr. Sidney Smith, the love of change; opinions which, however all may coincide in admitting the same facts, would lead them to the most widely various inferences in their application to character. Nor are other examples wanting. Take for instance the organ of Constructiveness: by some it is looked upon as giving the tendency to combine and put together; by others as producing the conception of mechanical power; while so widely different were the original conceptions of the discoverer of the organ and the founder of phrenology, as to the primitive function of this the organ *du sens mecanique*, that in a note to his section upon it in the "Craniologie," a French translation of a German work, published in 1807, we find it stated that "the essential is to seize the forms of the material world."‡ The organ of Imitation affords another example, one, which, in another place, I have more fully dwelt on, not of difference of opinion among phrenologists, but of unphilosophical generalization, in attributing to one organ manifestations which are clearly complex. It is obvious that as all imitation presupposes observation, so the power of imitation must in part depend on the strength and activity of the observant powers. It is obvious also, that as the manner of reproducing the copy of anything is extremely various, in the case of the actor, by the same means which produced the original effect; in the case of the painter or sculptor, by the implements of his art, so neither can we resolve the reproductive process into the activity of this organ. In this case also then, although unity of opinion (myself excepted) prevails among phrenologists, all that has been done is more or less crudely to generalise actions, and the philosophical determination of the faculty yet remains a desideratum in the science.

(32.) A complete view of the ground-work, and the method of phrenological inquiry, I have never yet attempted to produce, but in the few contributions I have made to investigation in the science, I have developed many conceptions which may serve to indicate the general charac-

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* Ill health has been the only cause of the long delay of these communications. Whether the degree of interest they excite be enough to make this statement other than a work of supererogation I know not; but to some at least, of those who view, in the study of Phrenology, something more than a source of momentary amusement, I am in hopes that their resumption may not be unacceptable.†

[† We have no immediate means of ascertaining what our readers, generally, think of these papers, but we at least know what ought to be thought of them. To us they appear not only of great value in themselves, but particularly so in the present state of Phrenology. We do not coincide with all Mr. Lowe's opinions, in respect to the ultimate analysis of particular organs, but that, after all, is a secondary matter. There is, however, very little in his general arguments from which we in any manner dissent. We have for years maintained similar positions, though as they have been advanced chiefly in conversations and lectures, they have not, till lately, came at all before the phrenological body, properly speaking. These views, therefore, are, as far as we are concerned, wholly original on the part of Mr. Lowe, and we are delighted to see them so ably urged. No one, we think, entitled to pass a judgment on these writings can fail to perceive that they are characterized by a depth, an accuracy, and a precision of argument wholly unusual, if not almost singular, in this department of Phrenology. When the series is terminated, or perhaps before, we shall direct the especial attention of our readers to them in a more suitable manner.] —Ed.

† Phrenological Journal, vols. 8 and 9—On the Laws of Benevolence and Destructiveness.—Vol. XI. 1 New Series. p. 333.

‡ L'essentiel consiste dans la capacité de saisir les formes du monde materiel.—Craniologie ou Nouvelles Decouvertes, du Docteur Gall, p. 99. Phrenological Journal, Nos. XIV., XVI., and XXIII., New Series.

of my views on this subject, a character which is further implied in the general march of my argument. In the address to the Phrenological Society in April of this year, I have done somewhat more, and have given an outline, which, though far from complete, is yet comprehensive of the true method and matter of investigation in Phrenology. To this, I shall now add some considerations, which I conceive called for, in order to explain the general progress of my argument in its essential diversity from the usual confusion of observation and inference, which is not only sanctioned by the use of phrenologists, but in which they seem alone to find security for their science. And were they not essential to the proper understanding of this, my present subject, their general value would yet form a justification for their statement.

(33.) The consideration on which I would insist is, that in the inquiry as to what are the seats of the special faculties, the positive data we have to start from, are, firstly, the facts of consciousness which all minds may recognize when presented, although the power of contemplating them with sufficient clearness to seize their image, and give them as it were an objective reality, is not very generally possessed—to this department belongs also, all that we learn of the nature of other minds in so far as it is explicable by, or can be brought into analogy, with our own self-knowledge, but not otherwise—for the actions of others *when we can find no clue to them from within*,* by leaving ambiguity as to their source, afford merely materials for inference as to the facts of consciousness. Strictly speaking, of course, all our knowledge as to the internal feelings or intellectual operations of others, is a matter of inferential, not of positive knowledge; but this is a distinction, in most cases, rather of metaphysical subtlety than of philosophical importance, the principle of the unity of human nature, being one that we may generally build on sufficiently, not to distrust ourselves when we attribute common actions to a common motive. The most satisfactory test, that we have arrived at the principle which produces the actions of others, is when we recognize a similar principle in our own breasts;† we are then only masters of an explanation of the actions of others, when we can bring them home to ourselves, and translate them into the language of our own consciousness. When we cannot make at least a near approach to this, our knowledge of the character of others, partakes of a conjectural character, and is necessarily obscure, imperfect, and conjectural.

(34.) The second class of data, are those of cerebral development, as acertained by observation. The difficulties which attend this are, in the nature of the subject, not many; the defect must chiefly lie in the observer's perceptive powers. These data are not of an order more positive than the first, but they are more readily apprehended, and their study is within the range of a much wider class of persons. The power of external observation is far more widely diffused than that of original research into the phenomena of consciousness.

(35.) Such are the data: but when we couple the facts of consciousness, with the indications of development, and say that such a portion of brain is the seat, instrument, or organ, of such a mental faculty, our conclusion is certainly not a fact of direct observation, but a matter of inference. With however great accuracy, moreover, we may have determined the existence of such and such a special faculty of mind, and with however complete success and precision, ascertained a local character of development, the inferential connexion of the faculty and the organ, even supposing that we found many cases of correspondence, would still be a matter demanding much additional investigation. *A priori*, supposing the existence of thirty-eight distinct faculties, and as many distinct cerebral organs, the chances would appear to be thirty-eight to one, against one determining rightly in any case, the connexion of any faculty with its respective organ. Certainly this is not a correct representation in itself, because, supposing the general principle granted, that each faculty has its special organ, and that their power and development correspond, then whenever the faculty were salient, the development would be equally so, and consequently their connection would be strongly brought forward, though never forced on the eye of the observer, save in cases of isolated development. Now there are few such cases, the immense majority exhibiting a preponderance of more than one organ, and the difficulty which this creates, the ambiguity which it might produce, may easily be made evident. For instance, in the very great majority of English heads, both male and female, the organs of Philoprogenitiveness, Firmness, and Secretiveness, are in a high degree of development. Now, supposing an individual inquirer to be prepossessed with the conception that the seat of Love of Offspring was at the vertex, that the disposition to persist and persevere was situated in the lateral region of the brain, corresponding to the juncture of the parietal and temporal bones; and that the disposition to conceal or dissemble was situated in the posterior lobes; he would certainly find in this country, a majority of in-

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* I consider, and in the papers above referred to have maintained that the principle of Sympathy is the primitive tendency manifested by this organ, an opinion which appears to me to explain the phenomena more satisfactorily, as well as to be more consonant with psychological analysis, than that at present entertained. I am *doubtful* whether in the first of these communications, I have not gone too far in assuming the accuracy of the present views as to Secretiveness. It seems not *improbable* that the tendency to 'cloak, mask, simulate, put on false appearances, deceive,' may be nearer the primitive function of that organ and that the tendency to conceal, is the joint manifestation of that and Cautiousness.

† This subject is more developed in the introductory remarks to my second communication on imitation, before referred to. It will fill up what there is partial in the present view.

stances, in support, more or less of each of his localizations, simply for this reason, that the organs are all three much developed in the majority of English heads. I need not dwell further on an hypothetical case, because ambiguities of a corresponding nature may be found in the history of Phrenology, with regard to Secretiveness and Acquisitiveness, or, in its present state, with regard to the determination of the functions of Secretiveness and Imitation, The risk of such, is made very palpable, in the history which Gall gives of the discovery of the organ of Love of Offspring. He was struck with the prominence of that portion of brain in females, relatively to males, generally, and to its especial development in the heads of the monkey tribes, and on asking a friend if he could suggest some common mental characteristic, the answer was, "the Love of their Young." Now, whether Gall had at that time, acquired his ideas as to the general position of organs, according to their importance to the animal organization, or their elevation in the intellectual scale, I do not at present recollect, but, as regards correspondence, it is obvious, that had the party interrogated, said Imitation, or Love of Approbation, the reply would have been almost equally to the purpose.

(36.) With what motive do I urge these considerations? To fling doubt over the investigations of organology? Not so. To point out stumbling blocks which stand rather in the path of the hasty empiric than the cautious observer, and against which warnings have not been omitted, or at least directions for their avoidance, in the writings of the fathers of organology and of phrenological science? Neither has this been, save in a very secondary degree, my object, though I may consider that these difficulties have never been hitherto satisfactorily traced to their fountain-head. What I aim at is, to shew the *absurdity of thinking inference more certain than fact.* Talk to the majority of phrenologists of the facts of consciousness, and they answer with cut and dry phrases about the "clouds of metaphysics;" as a drunkard may complain of the obscurity of the atmosphere, and no object being either straight or single. But talk to them of the connection between an action and an organ, and they then admit that you are in the right way, and that what you say may be worthy of attention, though perhaps all the instances quoted may be few and insignificant. The most judicious suggestions are disregarded when there is no reference to development, while the veriest absurdities, if there is such reference, are treated on a footing of respectful attention. Thus we have organs of Sophistry, of Human Nature (what does this mean?), of Marriage (which indeed is a degree better, bad as it is), and *two* distinct organs, *one* for Size and *another* for Distance. With the exception of the first, which I believe is the *protege* of a Mr. Bunney, all these organs have been received on the most friendly footing, and appear altogether quite in a thriving way. In a word, phrenologists are constantly taking conjecture for fact, and fact for conjecture.

(37.) It is the province of a true philosophy of mind to point out, not only the principles or springs* of human action, but the manner in which the mental phenomena are evolved, and their interdependence as a series of consecutive states. In the first department phrenologists have done very much as regards the feelings, somewhat with regard to the intellect, but with regard to the second, they have not contented themselves with doing nothing, nor with entirely neglecting what had been done to their hands, but have further endeavoured to mangle and deface the works of preceding inquirers. This is especially obvious as regards the phenomena of Association. Though inquirers into the philosophy of mind have not precisely agreed as to the number and nature of the laws of association, yet none have doubted the regularity of the phenomena nor has there been, considering the limited and partial attention given to the subject, any extraordinary discrepancy. Yet we find, in the last number of the *Phrenological Journal*, in a criticism on a work entitled "Thoughts on the Mental Function," the following extraordinary passage: "Mr. Combe (System, 5th edition, vol. ii. p. 256) holds association to consist not in any connection of *ideas*, which supposed connection metaphysicians have vainly attempted to reduce to laws, but in the sympathetic action of the *organs* whic h form the ideas, for there must be a state of an organ corresponding to every idea formed and every emotion felt; and by repetition of an act, the organs acquire an increased tendency to enter into the same states in the same order of succession."

(38.) I cannot conceive a passage more objectionable in every sense than this. In the first place, it sets out with denying one of those evident truths which has been a matter of common assent with all inquirers, and which it is scarcely possible to conceive denied by a writer knowing the meaning of words. What, is there indeed no regularity, no means in the successions of our ideas? Have places, or periods, really no power in recalling our thoughts? Does what has gone before *not* recall what has followed? If we have the first line of "Rule Britannia," will it indifferently suggest the second of "God save the Queen," or the tune of "Casta Diva," or the solution of a metaphysical problem?† But if impressions have a tendency to recur in the order in which they are presented, and further in the relations previously enumerated, what is the meaning of the denial of the association of

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* Bentham's table of the Springs of Human Action will be found instructive; resembling, in many respects, that of phrenologists, yet not founded on organology. It is one of the many proofs that phrenologists put the cart before the horse, when they speak of phrenology as a philosophy of mind *founded* on the physiology of the brain.

† "That there is some regularity in these successions, must, as I have already remarked, have been felt by every one; and there are many references to such regularity in the works of every age. If

ideas?* What but this tendency has ever been understood by the association of ideas? Why, unless it were for the laws of suggestion (or of original combination), of association, (or of casual connexion and reproduction), you, the speculator, could not be now writing on this or any other subject; you would not be able to tell whether to expect heat from iced water or moisture from burning charcoal; you would be, in fact, an idiot, without intellect enough even to entertain a delusion, to take a straw for a sceptre, since the connection between royalty and a sceptre presupposes an association of ideas, which you deny. Your connection about the sympathetic action of organs is an hypothesis which derives its only support from the very facts which you question. But as a phrase it is entirely unsatisfactory, because the same *organ* must be considered as called into speculation, where the impressions connected are quite different: we have not one group of *organs* for recollecting "Rule Britannia," and another "God save the Queen;" one for recollecting the word "house," and another the word "man;" one for recollecting where we hung up our hat, and another where we placed our umbrella; and yet we do not indifferently transpose them in our memory. "That organs acquire an increased tendency to enter into the same state in the same order of succession," is merely a materialized version of one of those very facts of consciousness which in the commencement of the passage are disputed. It is perfectly true that impressions and conceptions once connected, require a tendency to recall each other up in a ratio proportioned to the frequency of previous conjunction. This is a fact of consciousness: that it is a consequence of organization is what we would rather see supported by argument than put forth without evidence. As it is, the only support to this material hypothesis is the very fact or law of consciousness which the writer sets out by denying, and in so far as it is not a mere distorted paraphrase of this, it is without evidence or meaning. The whole passage is just what is worthy to follow the clubbing, under the generic name of metaphysicians, of the writers who have treated this subject; certain I am that the "clouds of metaphysics" never produced anything so worthless and unintelligible. Nor can I, who have penetrated into the interior of the question of suggestion and association, feel myself altogether justified in returning to the threshold to remove fallacies which only the very weakest could have found a stumbling block.

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past objects had been *suggested to us again* not in that series in which they had formerly occurred, nor in any of those *relations* which human ingenuity has been able to discover among them, but in endless confusion and irregularity, the knowledge thus acquired, however gratifying, as a source of mere variety of feeling, (is chaos gratifying?) would be wholly profitless, not only in our speculative inquiries as philosophers, but in the simplest actions of common life, It is quite evident, that in this case, we should be unable to turn our experience to account, as a mode of avoiding future evil or obtaining future good, because for the application of this knowledge, it would be requisite that events before observed, should occur to us at the time when similar events might be expected."—Brown's Lectures, vol. 2. p. 205.

This passage just catches a glimpse of the truth without grasping it; for, even as much of understanding as is possessed by the lowest of the brute creation, presupposes some regularity in the recurrence of their conceptions. The remark about variety is simply absurd.

* I use this term here, as it occurs in the passage criticised, but the association of conceptions or impressions is more correct, and that which I use in the development of my own views.

ADDITIONAL REMARKS ON THE LAWS OF THE TRANSMISSION OF ORGANIZATION.

(*By the Editor.*)

That children derive from their parents all their natural peculiarities, all those, namely, which they bring into the world with them, whether more or less developed, would seem a proposition so self-evident as to be a mere truism. And yet, how many there are who appear to have little idea of its truth, who seem to regard the individualities of children as the result of accident, or of some especial arrangement of Providence! We shall not stay to argue against opinions which we trust are now ranked among vulgar errors, but at once assume that the whole human organization, physical, intellectual, and moral, is derived immediately from the parents of the individual, with the exception of those modifications which are superinduced, after birth, by particular external agencies. When then any peculiarity appears in the offspring which is not visible in either of the parents, it will follow, that it is the result of a combination of elements, with which we are imperfectly acquainted, or that the peculiarity was more or less latent in one of the parents, and made its appearance in the child under favourable circumstances. For these reasons it is that we sometimes find a son resembling his grandfather or uncle more than his father, in some particular trait of character. This *law of parentage* then may be regarded as the first of the laws of organization. We see its action indelibly written upon everything that lives, from the lowest plant to the highest animal.

As there are two parents, and as each has the tendency to transmit its own nature, it is clear that, were each to act with its full force, a contradictory being would be the result—a being both completely male, and completely female. physically, morally, and intellectuality, or an unimaginable blending of the two natures; in a word, an impossible being. To prevent some such absurdity, it is necessary that the power of the parents should be so regulated, that in regard to all these points of organization in which there is incompatibility, the influence of each sex should alternately predominate; the offspring

being male, or female, according as the one or other influence may be in the ascendant. This is the second law of organization, *the law of sex*. It will apply, of course, to all those peculiarities in which the sexes naturally differ, as well those which are intellectual and moral, as the more obvious physical differences.

This law of sex seems to be a derivation from, or merely a special application of a higher law, *the law of harmonic proportion*. By this law, which appears to regulate all the blendings of matter, organic as well as inorganic, when two elements are presented to each other in certain fixed proportions, they immediately become united, so as to form one perfectly homogeneous body, with distinct properties, often, to all appearances, quite different from those of the original constituents. In fact, it presents the characteristics not of a complex body, but those rather of a new and independent element.* By these means arise what may be termed secondary elements, which, in their turn, may enter into combination with each other or with the primary elements, and thus constitute tertiary elements, and so on, there being however definite limits to the process. On the other hand, when elements are not presented to each other in certain proportions, they will not blend at all. They may be mechanically mixed, but they do not unite into one homogeneous body. Like elements will, of course, blend in all proportions, their different portions being only repetitions, as it were, of each other.

Now, a male and female of the same race will have many things in common, many also in contrast. Among the former may be enumerated complexion, colour of hair, &c.—almost everything in fact usually classed under the head of temperaments, together with a large portion of the general organization. The offspring, of course, must exactly resemble the parents in these respects, because new products cannot result from a blending of like elements. In those points in which the parents differ, it appears, from the consequences, that their peculiarities do not present themselves in proper proportions for blending, and that therefore the offspring take either wholly after the one parent, or after the other. Consequently, in a pure race, the females will all be so many counterparts of the mother, and the males of the father. And as all the members of the race have proceeded from one father and mother, as the influence of external circumstances in modifying organization is very trifling, and as, besides, the circumstances of all the members of the tribe would be much the same, it follows, that a remarkable family likeness morally, intellectually, and physically would characterize them all; that in respect to rights and privileges, the only inequalities which would be recognised amongst them would be those of sex and age; that as there would be amongst them an almost perfect community of feeling, so there would be, at least a practical community of property; and that, in fine, such portions of the tribe as could conveniently live together, would constitute one family in every sense of the word. Laws would be needless, where judgments did not vary; private interests would have little force where all were brethren, similar in habits, feelings, and condition; peace and happiness would flow of necessity from unanimity and equality. This state of things would constitute the golden age of every race. It would vary, of course, in some respects, as the race varied. The abundance enjoyed by an agricultural or pastoral tribe, would present more elements of happiness than the more precarious pursuits of the hunter or fisherman; and it could not be expected that the equanimity and profound tranquillity of a mild and contemplative people would find a counterpart amid the wild and restless enthusiasm of a tribe of hunters. Still, even amongst these, an occasional ebullition of passion against a friend and brother, could not often be expected to lead to any very serious consequences. That this condition of things was once universal, we can see no reason for doubting. Even at the present day, when all the tribes of the earth are mixed, there are unequivocal vestiges of its prevalence. And in all the periods of enlightenment that have succeeded this first age, the restoration of this primal equality of rights, privileges, and property, has been the dream of the philanthropist. He will succeed when he makes men equal and alike in nature, not before.

(*To be continued.*)

* It must be borne in mind, that the word element is here used in a relative, not in an absolute sense. Matter can never be contemplated except as an aggregate of properties, consequently, as something complex.

AN ESSAY ON THE BRAIN.

BY MR. F. S. MERRYWEATHER.

From the first dawn of anatomical science, a peculiar and pre-eminent power has been assigned to the brain. Aristotle and Pliny, the ancient and venerable fathers of natural science, seem to have been aware of the fact, that the brain of man is superior in quality to that of any other animal. Aristotle says, "Of all animals, man, has, in proportion to his size, the largest brain and the smallest interval between his eyes, and the most delicate sense of touch and of taste." Before proceeding to point out those qualities requisite to constitute a good brain, it would be as well to notice in a cursory manner, the most prominent features in the anatomy of the nervous system, the grand centres of which, are the spinal cord, and the encephalon. We can trace the rudiments of a nervous cord, more or less developed, to the invertebrated animals, appearing as several continuous nerves, enlarging and forming alternately, and at stated intervals, knots or ganglions. In the human system, the Medulla Spinalis is formed in a manner analogous to the brain. It is composed of two principal columns, and each of these is again divided into three smaller columns, thus

forming two anterior, two middle, and two posteriors. It is from an enlargement of these cords, that the principal parts of the brain are formed—the two cerebral hemispheres receive their origin from the anterior, and the cerebellum from the posterior columns of the spinal cord—from the middle ones might be traced the commencement of the optic tubercles or Corpora Quadrigemina.

The brain is covered by three membranes, the outermost of which is the Dura Mater, which has a cranial and cerebral surface; the cranial surface adheres closely to the bones of the skull by means of numerous ramifications of blood-vessels. It may be considered as answering two purposes, first, as a periosteum to the internal surface of the skull, and secondly as a protecting membrane to the brain. The Dura Mater sends inwards several prolongations for the obvious purpose of dividing the cavity of the cranium into different departments, The largest of these is called the Falx Cerebri on account of its scythe-like shape; it begins at the middle of the internal surface of the Dura Mater, and continues from before, backwards in a straight line, terminating in the middle of the tentorium—it descends down the middle of the "cavum cranii" forming divisions for the two hemispheres of the cerebrum. The tentorium is a process forming a strong covering for the cerebellum, dividing it, and protecting it from the weight of the cerebrum, the posterior lobes of which rest upon its outer surface. From the middle of the internal face of the tentorium, descends the Falx cerebelli, a process which divides the two hemispheres of the cerebellum in a manner similar to that which divide the cerebrum. Next to the Dura Mater, comes the Tunica Arachnoidea which is a delicate, thin, semi-transparent membrane, covering the outer coat of the encephalon, but not dipping down between its numerous convolutions, but forming a kind of bridge over the various eminences, all the nerves and veins that proceed from the brain, are covered by prolongations of this membrane. The third is the proper enclosing membrane, called the Pia Mater. It is the most vascular of the three, and dips down between all the convolutions of the brain, lining the smallest as well as the larger cavities or ventricles. The arteries which supply the brain with blood, spread out on its surface, dividing and subdividing into numerous ramifications, thus forming a perfect network. This minute sub-division of the arteries is of great importance as they protect the blood from rushing with too great force against the delicate tissue of the encephalic mass. The brain may be divided into several parts, three of which it would be as well here to notice, viz., the medulla oblongata, the cerebellum, and the cerebrum. The medulla oblongata is situated under the cerebellum, and is a medullary bulb, which forms an union beween the brain and the spinal marrow. "It is continuous below with the upper extremity of the spinal cord, anteriorly with the cerebrum, and laterally and superiorly with the cerebellum. We cannot, therefore, consider it the point of union, or the focus of these three segments of the central portion of the nervous system."* It would seem from many facts that the medulla oblongata is engaged to a considerable extent in the performance of important functions connected with organic life and sensation, for where we find an increase of muscular and physical power, we also find an increase in the size of this organ: thus in the horse, the breadth of it, is a third that of the brain, in the dog it is a half, while in man it is only a seventh. Now, the horse is gifted with considerably more physical power than man; but the dog when taken in proportion to its size, exceeds both. A dog will leap over a five-barred gate with more ease than a horse. In case of fracture of the skull, the nearer the injury is to the medulla oblongata, the greater the danger, so essential is this organ to the purposes of our organic economy. At the anterior part of the lower surface of this organ, is situated the Pons Varolii, or bridge of Varolius; it is likewise composed of the medullary matter. The cerebellum, or lesser brain, is located at the inferior portion of the posterior region of the cerebrum, from which, as was before stated, it is separated by the tentorium. It is composed of numerous layers of medullary and cortical substances. A section presents a curious ramifying appearance supposed to be similar to a tree called Arbor Vitæ, from whence it receives its name. It is divided into two hemispheres, each of which is again subdivided into three lobes. The cerebrum is not only the largest portion of the encephalon but it is also the seat of the most important organs of the human mind. It is divided like the cerebellum into two hemispheres, but its surface instead of being laminated is extensively convoluted, forming a considerable extent of surface. These two cerebral parts are exactly alike on both sides, and an eminence or protuberance occurs not on one side, without a corresponding one on the other. This is a wise provision, for an injury, or even an entire loss of the part appropriated to an organ of the mind, on one side, does not necessarily cause an entire loss of the faculty. Just on the same rule that being blind in one eye, is no reason why vision should be lost to the other—for the opposite hemispheric portion is still able to fulfil to a certain degree, its mental function. This, then, refutes the anti-phrenological argument, that the loss of a portion of brain, does not cause a total loss of the faculty assigned by phrenologists as the function of that particular part. If it did, it would be a fact detrimen al to the science of Phrenology, for while the other half of the part remains, it is still capable of, to a *certain degree*, fulfilling its office. As the organs on both sides are engaged in the same function, and are acted upon at the same moment of time, we find the two hemispheres of the cerebrum are united by means of medullary fibres passing from side to side. The principal organ that effects this communication is the *Corpus Callosum*, which is of a firmer texture than the other parts of the brain, and

* Meckel Anat. vol. ii. p. 11.

composed of *medullary* fibres. It is worthy that the composition of it should be remarked, for the action of transmitting sensation is not a mental operation, and consequently, not the function of the cortical substance. It appears likely that a general connection will be traced out, not only from all parts of the nervous system, but also forming a relation to every phrenological division of the human mind. The latest researches have shown that the medullary fibres "Having entered the brain, whether directly, or through the medium of the spinal cord, the fibres proceed in bundles, (which are coarsely demonstrated fibres of the brain) towards the cortical substance forming on their way, the most intricate plexuses, but never anastomosing. Arrived at the cortical substance, the fasciculi form plexuses among the grey globules, exactly comparable with the laminable plexuses already described, and at last, the fasciculi having broken up into their component fibres, or very small collections of them, these form loops in the cortical substance of the brain, like the terminal loops in the substance of the tissues."* Thus, then, we find a general connection established with all parts of the brain, and thus it is that the same cause produces an effect on different phrenological organs at the same time. It is almost then impossible to have a simple manifestation in consequence of their anatomical union. Such is the general appearance of the two grand centres of the nervous system. Galen distinguished two classes of nerves, hard and soft—the hard originated from the cerebellum, and to these he ascribed the power of sensation—and the soft, which came from the cerebrum, he considered the nerves of motions. Modern anatomists have proved the existence of separate qualities of different nerves, but are far from agreeing with the opinions of Galen, for it has been proved that the nerves of hearing, sight, smell, taste, and the great sympathetic nerves of the heart, proceed directly from the brain, while those of sensation and motion originate from the spinal marrow. On each side of the nervous column, there exists two sets of nerves—the first from the anterior column, which are the nerves of voluntary motion, and the second from the posterior, being those subservient to the functions of sensation, and these fibres after emerging from the vertebra, unite, and form an apparently single nerve, which is afterwards divided and ramified over the whole human body, so minutely and extensively, that we cannot injure the most limited space without affecting the nerves of sensation. A nerve is exceedingly complicated, and composed of minute fibres, which form themselves into bundles or filaments, and a number of these filaments combined to form a nerve—these are enclosed in a sheath called the neurilema, or nerve coat, which appears also to be composed of fibres of microscopic fineness. In tracing the course of the nervous ramifications, a number of irregular knots are observed; these are called ganglions and plexuses; the former is a collection of minute nerves, connected together by a cellular tissue, thus forming a somewhat compact mass. A plexus is, as its name implies, a weaving together of a number of nerves, which, after closely uniting, again separate, with an increase, however to their number, they continue uniting and expanding, till at last, the fibres become so minute, as to be lost to the unassisted eye. The nerves of this system are of two kinds, the voluntary and involuntary. The muscles which move the head, arms, legs, body, and the various organs of the senses, are all under the dominion of the voluntary system, being moved by the action of the wlll—the power to produce which, seems to be vested in the cortical substance of the cerebral convolutions. Before volition can be generated, impressions must be received from some external objects. Thus, in viewing a pleasing or disagreeable sight, the object or objects act upon the optic nerve, from which an impression is communicated to the brain. Voluntary power is then called into operation, and afterwards a movement of satisfaction or aversion takes place in the motive nerves of the limbs. It therefore becomes necessary that a direct communication should be established between the cortical substance of the brain, and the extremities of the parts acted upon; this, we find is the case through the medium of the nerves, which having received impressions, convey them with the swiftness of an electric fluid to that part of the spinal marrow from whence they originated, and passing up the white, or medullary fibres of the cord, which are similar to "that of the brain, and is composed entirely of the *continued nervous fibres*. Bundles of them form intricate plexuses without anostomoses, and have all *a general direction towards the brain*. As far as the microscope can discern, the fibres as they ascend get nearer to the *grey matter*, being successively overlaid by those which abut upon the cord higher up than themselves."* Having arrived at this generating element, they impart the sensations or impressions to the brain, and consequently volition or voluntary power is produced, which probably is conveyed downwards to the particular organ to be moved or excited, and causing them to act accordingly. The involuntary system of nerves, on the other hand, preside over those organs of the human body which are not acted upon by the will, such for instance, as retention, digestion, circulation, sensation, &c., whose functional operations are constantly and unceasingly in action, without our will having any power over them. If, however, an injury or derangement occurs in these parts, an instant knowledge of it is imparted to the brain. To a certain degree, however, this system can be greatly influenced by voluntary action, which can exert a power, although limited, stopping or retarding for a time, the action of those organs, under the dominion of the involuntary nerves.

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* Mr. Paget's Report, on the use of the Microscope, in Anatomy and Physiology.

* Mr. Paget's Report.

QUALITIES NECESSARY TO CONSTITUTE A GOOD BRAIN.

Ancient anatomists considered that the quality of the brain bore an exact proportion to its absolute size, but this however is subject to many objections, and it would appear that four things are necessary to constitute a good brain, viz., Substance, Form, Size, and Weight. It is impossible to estimate the intellectual power of a human or comparative brain by any *one* of these tests, and it is only by considering them unitedly and taking into consideration the legitimate power of each, that truth can be expected to result. First,

SUBSTANCE.

Modern researches have not only proved that the human brain is composed of two separate substances, but that they are essentially different in their form and functions. The most important of these, is called the cortical, which appears to be employed in generating relation, and carrying on the intellectual operations, as I have in a former communication endeavoured to prove it to be the seat of the intellectual power (which opinion is favoured by the anatomy of the human and comparative brains—by the changes found in cases of mental debility, and from its decrease in old age, &c.) I shall refer to it, and pass on to the medullary, or white substance of the brain, which on the other hand, seems to be an element supplying motion and strength to the physical parts, besides, serving as a communication to the seat of the intellectual element. Gall considered this to be the principal matter engaged in the operations of the mind, and that the use of the grey or cortical, was merely to "secrete the medullary." The fact, that in the fœtus, the medullary is formed first, proves this to be unfounded, but tends to substantiate the opinion, that it is engaged principally in the physical parts, over which it maintains a sole influence. As this substance is formed before the cortical—so also is muscular manifested before intellectual energy. Comparative anatomy presents us with facts equally important, no one will deny, that in the lower animals, strength preponderates over intellect. This we find is quite in accordance with their nervous system; for, "In every part of the brain of the quadruped, the medullary preponderates, and the cineritions is deficient." The next is—

FORM.

Which is one of the most important qualities necessary to constitute a good intellectual brain; a brain might be large, but unless it is large in the anterior lobe, it will not necessarily follow, that it will possess superior intellectual powers. Phrenology has not only proved that the brain is the natural organ of the mind; but from an immense accumulation of facts, that it is composed of as many divisions or localities, possessing separate and distinct qualities as there are passions, sentiments, and faculties in the human character; and it will always be found that men or animals manifesting a superior degree of mind or sagacity, will always be found to possess a superior cerebral development indicated by the ar... predominance over the posterior regions of the brain and cranium. Look at the caucassian among the genus homo, the elephant among the mammalia, and the parrot and hawk among the feathered tribe; and it will be instantly observed, that their cerebral organization bears an exact ratio with their mental manifestations.

(*To be Continued.*)

THE

PEOPLE'S PHRENOLOGICAL JOURNAL.

Practical phrenologists have continually to speak of well and ill-balanced heads, and some differences of opinion prevails amongst them as to what should be considered the standard of a well-balanced development. Our own views on this subject have naturally taken their cast from our peculiar studies, and, as they differ somewhat from those generally held, we shall lay them before our readers. Our attention has been called to the subject by a correspondent, in the name of some constant readers, and we answer his enquiries with pleasure, as we wish to give every aid in our power to those desirous of studying, in earnest, this important science.

The term, "a balanced head," may be taken in a twofold acceptation. It may mean a head in which all the organs are absolutely equal, or one in which certain organs are in superior development, and the rest in different degrees of subordination. It may easily be shewn that an organization of the first kind, supposing it possible for such to exist, would be the very reverse of a perfect organization. An individual thus constituted, and possessing, moreover, a perfectly mixed temperament, would be wholly devoid of any particular bias, and would, in a measure, be the mere sport of circumstances. Within his peculiar range, one pursuit would be as acceptable as any other, and his talents in one line would be the measure of his capacity in almost all. Now, to arrive at excellence in any department whatever, a special devotion to it, to a considerable extent at least, is indispensible. In almost every department, the highest excellence is the reward not merely of peculiar talent, but also of special and long-continued devotion.

We need say nothing of the perpetual conflicts which would exist in the mind of an individual in whom the social, selfish, and moral feelings were in exact equilibrium, this has already been sufficiently insisted upon among

phrenologists. Our object is to shew the effects of such a state of things upon the general purposes of life. Consider the condition of an individual thus circumstanced, in the state of nature. How is he to live? He has no greater partiality or capacity for one occupation than another. At one time he hunts, at another fishes; now he makes some desultory efforts as a husbandman, and then again perhaps as a herdsman. All depends on whim, or the necessity of the moment. Unless external circumstances were very favourable, he would stand a considerable chance of starving, as his skill would not be sufficiently great, in any direction, to meet emergencies; and if circumstances were favourable, he would still be nothing better than a thriftless, aimless savage, the mere creature of impulse, wholly incapable of pursuing steadily, for any length of time, any object whatever. It is clear that such an individual does not possess the qualities from which civilization could arise. Even if placed by circumstances in the midst of civilization, he could not possibly occupy any but a very subordinate condition. If compelled to labour, he would be fit for nothing but to be a servant in one form or other. If we look around us, we shall find that the nearest approximations to such an organization as this, will be found amongst the *mere workers* of every grade, those whose business it is to obey the commands of others, and to act as little as possible upon their own judgment. As an illustration, we may mention the small round head so prevalent among the coal-heavers, dustmen, and scavengers of London; and the equally rounded, though larger, and, in most respects, superior heads, of some of the more aboriginal portions of the Irish peasantry; such for instance, are chiefly met with in the province of Connaught.*

Reasoning, then, shows that it ought not to be, and facts make it evident that it is not the plan of nature to produce balanced organizations in this sense. On the contrary, we find, that throughout the whole range of animal existence, all creatures have some of their tendencies in predominant energy, and certain portions of their organization in predominant development. All have an appropriate sphere in which they are destined to move, and within which alone they can find their happiness. One man is intended to live by the chace, and his whole organization, physical, intellectual, and moral, is adapted to that end. This is strikingly evident in the general proportions of the frame. We find the lower limbs, long and powerful, capable of supporting great and continued exercise in walking and running; the chest and arms, on the contrary, vigorously, but subordinately developed, suited for occasional, and then powerful efforts, but not for drudgery; and finally, we have the tapering waist, indicating as well asterity, as a subordination in the desire of food. Another man, on the contrary, is intended for a life of labour, of a different cast; and we see his destiny revealed in the predominant development of the chest and arms, and the subordinate size and length of the inferior extremities. And so, with various other modifications of form, which it is unnecessary now to particularize. Corresponding peculiarities will be found in the moral and intellectual organs. It is not the design of nature to produce one superior type, leaving it to chance or circumstances, to make a sufficient number of modifications in it to answer the varied purposes for which man has been formed; on the contrary, she has primarily produced several entirely distinct types, and multiplied them greatly by differences of temperament: so that we look in vain, even in the origin of things for any one model of excellence. Excellence, therefore, in the human organization, is as relative to certain pursuits, as it is in the inferior animals. No one would think of assuming any one type as that which would constitute perfection in the dog, for instance. No one would think of theorising respecting an organization that would equally suit the greyhound and the bull-dog. Neither should we look for a model type in man. Our object should be to consider what cast of organization is best suited for special pursuits, bearing in mind, that inferiority must be as strictly a constituent in our arrangements as superiority. No man can be great in all things; no man can be amongst the greatest, even in many things. Whoever has made the attempt has failed. Imperfection, then, paradoxical as may seem the assertion, is truly one of the elements of greatness.* How often should

* In these, the development of the social region is very superior to what it is in the former; the moral region is also larger, and the temperament more favourable, but the forehead is extremely small, while it is proportionally large in the others. In neither case, however, is there any approximation to a balancing of temperament.

* It is hardly necessary to say that we use the term *imperfection* relatively.

we have destroyed the excellence we sought to foster, could we have had our will in modifying organization. In looking at the head of an extraordinary man, how often has the phrenologist sighed to think what a pity it was that nature had not given a little extra development here and there. Perhaps had nature done so, she would have destroyed a great part of the excellence of her work—she would have given, possibly, a wider range to talent, but in so doing she would have interfered with that special bias towards certain pursuits, indispensable to greatness; or he would have caused undue attention to be wasted upon mere subordinate matters, to the injury of higher objects. Add a little extra development to the perceptive faculties of the great metaphysician, and natural philosophy, or statistics, or political economy, or something of that sort, begins to divide his attention, and he ceases to be the great metaphysician. Improve a little the organization and temperament of the first great warrior, and you divert, perhaps, the current of his feelings, and compel him to assume some subordinate character. According to these views, then, a well-balanced head is one in which certain organs are in marked prominence, and others in more or less subordination, so that, while all the general purposes of life are sufficiently well attended to, there shall be special devotion to, and special capacity for, some leading pursuit, or range of pursuits, more or less important or elevated as the case may be.

These views, it appears to us, are calculated to modify several of the opinions of medical phrenologists. They open out some new ranges of enquiry, and shew in an especial manner, the impropriety of laying some rules of perfection, in our present limited knowledge of human nature. We have but very inadequately, we fear, explained ourselves, in this hasty sketch, but we shall be able to supply hereafter, whatever deficiencies appear in it.

INTELLIGENCE.

LONDON PHRENOLOGICAL SOCIETY.

NEW VIEWS ON THE FUNCTIONS OF THE ORGAN OF LANGUAGE.

Mr. Deseret, of Edinburgh, delivered a lecture in the London Phrenological Society, at the Marylebone Institution, 17, Edward-street, Portman-square, on the 6th instant, on the Functions of the Organ of Language, in which he attributed to that organ a function different from that which has hitherto been supposed to belong to it by phrenologists. His views are decidedly original, and they bear upon many important points of the functions of many of the other organs. We will, therefore, present our readers with an outline of his lecture to enable them to form their own opinion of the value of his views:—After stating the opinions of Drs. Gall and Spurzheim, and Mr. Combe, viz.—That language confers the power of inventing arbitrary signs for the expression of our ideas, and likewise of learning the arbitrary signs invented by others; the lecturer proceeded to shew that artificial signs were not a class of *natural* perceptions of sign at all, for that all artificial signs were arbitrary and only invented by us in *imitation* of a class of natural perceptions—that but for the capacity of perceiving *natural* signs we could never have invented *artificial* ones for the expression of our thoughts and emotions, and that the power evinced by us of giving natural expression to these, and of perceiving that expression in others, forms, the elementary class of perceptions belonging to the organ of language, in fact that it is the power of imparting natural expression, and of perceiving it in others.

He stated that he had observed in children, even at an early age, a great diversity in their capacity for giving natural expression to their feelings by natural signs, He had observed that their capacity in this respect did not always depend upon the force or power of the elements of character desiring expression, but varied extremely in different individuals possessing sentiments and propensities closely resembling each other in their character. He mentioned the cases of two children possessed of large benevolence, veneration, hope, conscientiousness, and firmness, with the propensities and intellect in full development in both. The one possessed a facility and a felicity of natural expression not evinced by the other. The one had a gay hilarious, highly excited expression, while the feelings of the other, evidently of the same sort, seemed to struggle for expression in every feature of the countenance. You could read the feelings of the one at a glance while those of the other, although anxiously desiring to be unfolded appeared to be crushed as it were in the bud and forbidden their natural manifestation. In the former the organ of language was large and prominent, in the latter, small and deficient. After stating a number of illustrative cases he proceeded to show the extensive application of his principle. That it was by means of language we were enabled to give natural expression to love, hatred, kindness, and all the feelings of our complex nature; and to detect the expression of them in others. That in order to be able to impart expression besides the organ of language, it was of course necessary to possess well developed the faculties desiring expression, for if these were small, the natural language would necessarily be that of weak or imperfect impulses, still with language there would be fulness of expression to the extent of feeling or intellectual nature experienced. That the lower animals possessed the organ of language, as well

as man. Hence their capacity of using signs. Hence their cries, screams, and attitudes, and likewise the power shewn by them of detecting the meaning and intention of other animals. The elephant, with greater intellectual capacity and better tendencies than most of the lower animals, is deficient in power of expression, and accordingly the organ is small in its head, its eye is sunken and small; likewise deficient in the pig, large in the parrot and singing birds.

Mr. D. then stated, that the organ of language was large in all persons who were good physiognomists combined with well-developed form, and that persons deficient in the organ of language manifested a great difficulty in catching natural expression, or of inferring the character of persons from external symbols. That such individuals might evince great energy and intellectual power otherwise, but that, being deficient in this organ, they had a difficulty both in giving expression to their own feelings by natural signs, or of observing the manifestations of these in those around them. He then traced the manifestations of the organ of language through a variety of the arts and vocations of life. He stated that it was large, for example, in all first-rate Bow-street officers. It was large in Townsend and John Forrester; hence their capacity for tracing and detecting criminals.

The first-rate actor has it large, to enable him in combination with Imitation, and our whole animal, moral, and intellectual nature, to give *natural* expression, as contradistinguished from mere imitation, to the feelings and propensities he is called upon to embody. It was large in the elder Kean; Mrs. Siddons had the organ very large, combined too with the reflective faculties only rather full; and the characteristic feature in her acting was expression. It is large in the head of Garrick, Cook, Macready, and Young. It is large, likewise, in the comic performer, but in him unites more with Wit and the propensities, than with Ideality and the sentiments as in the tragic actor. Imitation, of course, is an indispensable element likewise; hence their power of embodying all the diversity of expression which they have observed, and their capacity for observing it. The organ is large in the portraits of Munden, Yates, Liston, Knight, Emery, Matthews, and Meadows, in the Garrick Club, large, too, in the late Mr. Wrench.

He next proceeded to shew that the organ was large in all distinguished painters, sculptors, and engravers, and that it was manifested in their works by giving expression to them, Accordingly, that it was possessed in a high degree by all the old masters, and was a distinguishing characteristic in those, too, of modern times—Raphael, Michael Angelo, and Murillo, had the organ large; hence the old masters were distinguished for expression. All the masters, indeed, of modern times are highly endowed with the organ of Language. Hogarth, Gainsborough, Richard Wilson, and Sir Joshua Reynolds, are possessed of the organ large. Hogarth manifests it in the force of his broad satirical humour; Gainsborough in his portraits, in his fine expression of the domestic affections; Wilson in the classical character of his landscapes; and Reynolds in the elegance and elevation of expression which he infused into every subject he touched. It is even manifested in a high degree by George Moreland, who possessed the organ large. He catches and gives expression and character to a group of pigs, which is truly natural; by the twirl of a tail or the expression of an eye, he throws humour into a subject which no one else could have discovered in it. That Moreland's taste for painting pigs arose from his deficient Ideality with large Alimentativeness, the latter of which he evinced in an excessive propensity for eating and drinking; hence his fondness for watching the expression of this propensity in the inferior animals, and his power of depicting its manifestations. The organ is large, too, in the portraits of John Opie and Loutherbourgh in the Dulwich Gallery, and the portraits of Joseph Nollekens, the sculptor, Benjamin West, and Sir David Wilkie, in the National Gallery.

A person with the organs of Form, Space, and the other perceptive faculties, combined with Motion, will be capable of drawing or painting the likeness of a person such as it appears to him; but the organ of Language being deficient in the artist, the portrait will be stiff, hard, and wanting in expression. He will, in fact, be incapable of ragarding the various minute forms and portions of space and colour before him, as expressive of that complexity of perception and feeling of which the mind within is susceptible. Accordingly when he looks on the features of a face, he detects with perfect accuracy each small outline, lineament, and portion of space going to make up the whole, and can group them with the utmost facility, but these do not awaken in him or suggest to him the corresponding emotions in his own nature, of which they constitute the expression in the face before him, and he accordingly gives you a stiff, hard, well-coloured outline, without expression. Hence the technical phrase in art, want of feeling in a picture; hence it is that a picture is said to be well-painted, but is cold, and wanting in softness and character. Several of the great masters do not manifest in a high degree capabilities as draughtsmen, but they are all distinguished in their respective departments for power of expression; the former power is accordingly regarded as comparatively simple and elementary, although highly requisite, the latter as more connected with deep feeling and reflection, and associated with the manifestations of genius. Hence expression is the pervading characteristic of Raphael in his Holy Families, &c., of Murillo in his peasant-boys and flower-girls, and of all the modern masters in the various departments for which their other faculties respectively adapted them.

Mr. D. then proceeded to shew that music was nothing but a highly generalized language addressed to the various faculties of our nature, and accordingly that it was capable of being understood and appreciated by the inhabitants of all countries. Hence, too, music was of dif-

ferent kinds, expressive of different classes of feeling. Some was martial, other sentimental, and other mixed, combining both the warlike and sentimental. Language, accordingly, as well as Tune, is large in all great musical composers. It is very large in the portrait of Handel, likewise in singers. It is large in those of Mrs. Billington, Miss Stephens, Miss Kemble, and Mrs. Alfred Shaw.

He next illustrated his view by reference to the poets, who manifested a remarkable power of seeing the language of their thoughts in every object around them. Hence the power of inventing simile. Hence, too, metaphorical language, and hence their power of describing natural expression. He next proceeded to shew, that possessing the capacity of giving expression to our feelings by natural signs, and the power of perceiving them in others, we have the fundamental element upon which artificial language is based. Without the faculty described with all the powers of intellect, propensity, and sentiment possessed by man, we could never have invented artificial symbols for the communication of our thoughts. We have, in this simple elementary faculty, the origin of the class of perceptions and suggestions, which naturally originated artificial language, and, combined with our physical, moral, and intellectual nature, imparted the force and character possessed by it. Artificial language, is accordingly based on natural language. Hence it is, that in almost all languages. there is a natural affinity in point of sound, between many of the primitive words and their signification. Even in the English language, this occurs to a great extent. The words expressive of tenderness and affection, for example, are soft and aspriated, such as those of *love, dove, kindness, affection.* Words, on the contrary, signifying disunion or disagreement, are harsh and jarring upon the ear, as the things themselves are upon the feelings—such are the words, *war, murder, massacre,* and numerous others of the same class. The poets avail themselves largely of this peculiarity in language, in adapting the sound to the sense. Homer and Virgil abound with passages where the very sound of the words, even to an ear not conversant with the language, conveys something assimilated to the sense. Shakespeare and Milton, too, are full of such passages.

Mr. D. concluded his lecture, by pointing out the probable manner in which artificial language had been formed, and its gradual development. until it attained the aspect it now bears in all the civilized countries of the world.

From these facts, Mr. D. inferred

1st. That the organ of Language possesses the function of imparting outwardly the natural expression of the various faculties with which we are endowed, and likewise of recognizing this expression in others. Accordingly the organ is large, in persons manifesting these characteristics.

2nd. That the organ is large in all tragic and comic performers of distinguished excellence. Likewise in great composers and singers. Accordingly, they all evince great power of imparting and recognising expression.

3rd. That all great masters (ancient and modern) in painting, sculpture, and engraving, are largely endowed with the organ of language, which they show in their works, in the giving of expression to their subjects.

4th. That in addition to possessing the power of acquiring a knowledge of artificial language, and of expressing themselves in it, poets and orators manifest a capacity for the appreciation of natural expression, in selecting objects from nature, for their similies and metaphors.

5. That artificial language is a mere superstructure raised by art, in imitation of this class of natural perceptions.

[As far as we can understand Mr. Deseret's views of the function of the organ of Language, from the above sketch, we cannot at all agree with them. We shall not, however, make any further remarks upon them, until we have had an opportunity of examining them more carefully. If circumstances permit, we shall speak of them next week. We are always pleased to find phrenologists bringing forward original views, and defending them with spirit. It is by such means that truth will be ultimately purified from the dross that is almost always mingled with it.—Ed.]

To the Editor of the Peoples' Phrenological Journal.

Sir,—As you wish, I presume, to record the proceedings in the Mechanics' and Literary Institutions in relation to Phrenology, and to receive communications from Lecturers on the science, I shall be happy to contribute any information that comes in my way during my occasional engagements in the Provinces.* My engagement since 10th October this season, have been confined to Hampshire and Sussex. At Portsea I delivered four Lectures for the Mechanics' Institution; a very large room was crowded every night. A class of sixteen was also formed, to receive special instructions.

At Portsmouth, for the Literary and Philosophical Society, I delivered three Lectures, one a week; as at Portsea, the attendance, in despite of bad weather, was very good. At Gosport for the Literary, &c., an introductory Lecture: a large audience, chiefly of the gentry. The two Medical Superintendents of Haslar Hospital, and their families being present. Each of these gentlemen is highly favourable to Phrenology. There is a fine

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* We shall always be happy to receive the kind of information alluded to. We should also be very glad if Mr. Donovan, in his experiments, would have reference occasionally to the views we have expressed on the subject of large and small foreheads. It is the practical phrenologist that must ultimately decide questions of this kind. We announce our views as practical phrenologists, and we have no doubt that other manipulators will confirm them. The point we would particularly direct attention to is this. When he meets with persons of good organization generally, self-esteem, and the concentrative region large, the temperament energetic, and intellectual, but the forehead *small*, we maintain that he will *often* find them manifesting a degree of intellectuality and talent *wholly disproportionate* to what they ought to do, according to the received doctrines on this point. We say *often*, because we cannot communicate all the modifying circumstances that affect these cases; but in our own experiments we never hesitate to pronounce decisively on this point.

collection of Natural Crania at Haslar Hospital, collected and presented, chiefly by Dr. Richardson.
At Winchester Institution, two Lectures on Phrenology, as the basis of Education.
At Chichester do. three on the same subject.
At Newport, Isle of Wight, four on Phrenology.
At Cowes Institution, three do.

There does not seem to be an anti-phrenologist in these parts; many persons there are, no doubt, who know nothing and care nothing about the subject: but there is a class of young men to be found, at most of the Institutions, who are easily excited to feel a deep interest in a Science which facilitates so much, at least the elementary part of mental philosophy.

My practice as a Manipulator affords a pleasing proof that Phrenology is beginning to be respected, even by many who don't comprehend it. Thus, at Portsea, most of my time was taken up *with whole families of children*. In one case, a person in trade, had eleven children examined, and was anxious to receive suggestions on the subject of education. That Phrenology advances wherever it has been fairly presented to the public, I am quite certain; even among the Clergy, it is quietly progressing, and I have little doubt that ere long we shall find that favourable change of feeling in this quarter towards Phrenology, which is so liberally evinced towards the once dreaded science of Geology. We shall soon have "The Little Phrenologist" and "The Phrenological Primer," &c. &c. by the Rev. ———

The perusal of the 41st, 2nd, and 3rd. Nos. of your Journal, which I met with here accidentally, have given me much pleasure, and I shall feel happy in contributing in any way, within my humble sphere, to the support of the Journal, conducted as it now promises to be.

My time is almost exclusively employed in the acquirement of knowledge and skill as a manipulator. Unassisted by the skilful manipulator, literary labours would do but little to produce belief and support from the public at large. I rarely have met with a person who dated his conversion to Phrenology from the perusal of a book or an essay; but of converts from even slight confirmations, from a correct estimate of the strength of feelings, or talents, by even an amateur manipulator, I have known hundreds, apart from those who have consulted myself. In lecturing lately at Portsea, Portsmouth, and Gosport, I was careful to shew that neither Gall, Spurzheim, nor the American and Scotch phrenologists, broached the views of Dr. Engledue as to Materialism, but on all occasions I expressed my respect for the boldness and independence of Dr. Engledue in relation to his declaration of opinion, whilst I deemed it to be a most ill-judged act, to put it forward as he did at the Phrenological Association in 1842.

I am, Sir,
Your obedient servant,
C. Donovan.

Newport, Isle of Wight, Dec. 9, 1843.

CORRESPONDENCE.

PHRENOLOGY FOR THE PEOPLE.

To the Editor of the People's Phrenological Journal.

Sir,—Whilst the people have now a phrenological organ suited to their wants and means, [illegible] of the subject, the great majority of the working classes seem to be debarred from receiving practical benefits from any competent person, in consequence of the fee which must be charged, when papers on the entire organization, are required by persons who consult a practitioner, under the influence of a vague curiosity, either respecting themselves, or their children. Those who come to have "their heads examined," expect to be told "everything about themselves;" and their constant cry is, "Pray don't omit or conceal anything; I wish to know every particular, good or bad, &c.," and so they run on, entailing a work of some hours on him who will not stoop to the practice of stringing together a tissue of flattery, and vending it to all comers. This mode of consulting a professional phrenologist must cease, except among those who can afford to pay for the time required, and a better and more useful one can be followed, so as to give even the humblest artisan an opportunity of receiving many of the benefits of phrenological advice. What I would suggest, is, that each person should define to himself his object in consulting a phrenologist, just as he does when he consults a medical man. That he should come *with a case*, and have his enquiry condensed as much as possible, and directed to some real and practicable object, such as receiving or binding an apprentice, devoting a youth to such or such a calling, and that questions, written, when possible, should be prepared, so that answers could be given to them with little loss of time, either verbally, or in writing. In my own practice, I usually enquire, "have you a defined object in coming; any concentrated purpose?" and I mostly find that it is "only to have my, or his or her head examined." &c. He must be a rapid writer and composer, who can write a tolerably complete paper in less than an hour, for those who "want to know everything;" but if the plan I suggest were followed, and if people would consult a phrenologist only on specific and *bona fide* cases, much useful information might be received, at very little loss of time or labour to the adviser, and, consequently, for a fee much smaller than can be charged, where a review of the entire organization, and an essay on the entire moral and intellectual tendencies is required. Should you deem these few and hasty observations worth a place, I shall pursue the topic.

Your obedient servant,
C. Donovan.

London Phrenological Institution, 7, King William Street. Strand. December, 1843.

ON THE PUNISHMENT OF DEATH.

For the People's Phrenological Journal.

Out of innumerable instances that might be adduced to prove that death punishments are inefficient to deter man from murdering his fellow-creatures, a case appeared in last Friday's papers, which of itself, would be sufficient to produce in any thinking mind, a conviction of its [illegible]

A man in Manchester, after several times threatening to punish his wife, for constant habits of drunkenness, at length sets about fulfilling his threats by treating her most unmercifully, kicking her, dashing her against a stone, and divers other similar atrocities, which induce death. Whilst in the act of thus brutally using his wife, he is told that he will certainly kill her, and that he will be hung for it. He immediately tears off his neckcloth, and answers, "I don't care; here is my neck, ready for the gallows." The man, however, afterwards absconded, but finally delivered himself up to one of the officers of justice.

Now what can be plainer in this case, than that the murderer cared nothing for the punishment of death, which, as he well knew, must inevitaby follow the perpetration of the crime? The law if it takes its course, and hangs him, will only be bringing about an object, which he, doubtlessly, would otherwise himself have accomplished; it will, at any rate, wreak its vengeance on one who sets no value on that life of which it will deprive him. Z.

[We have to thank our correspondent for his expressions of approval.---Ed.]

The brain is an organ occupying a very great area of surface, when its convolutions are unfolded, as in cases of hydrocephalus, or water in the head. In the healthy state, it is compacted for the sake of economy of space.

Three-fourths of the surface of the *brain is not in contact* with the inner surface of the skull. This is a startling fact for the discoverers of "*the hundred new organs*" by external excitement. How did they, or how could they arrive at their facts? If the whole brain were a smooth surface, and capable of external excitement, then there would be some probability in arriving at the truth. But as the brain is formed, convoluted, irregularly overlapping itself, the infractuosities often an inch or more in depth, there remains no kind of possibility of even approaching the truth, when the organs are so multiplied; for let it be remembered that it is an arbitrary assumption to place the organs on the portion of brain in the immediate vicinity of the skull, in preference to that in the lowest portion of the convolution, or in that part an inch from the surface, and overlapped by other portions of brain. Gall obviated this difficulty, not assuming that there was any necessary connection between the foldings of the brain and the organs. According to Dr. Buchanan, and others, three-fourths of their new organs cannot be in connection with the surface of the skull, and to arrive at them we have to go through *two or three strata of organs*. If I have any acquaintance with the structure of the brain, this must be the case.—*Dr. Collyer.*

Persons there are, and by no means a few, who can be acted on at any time, imaginatively, so as to produce extraordinary results. The imaginative action is the operation of the mind from information previously acquired. That is, if a person who has been accustomed to the use of ipecachuana or tarter emetic, should he take an inert substance, supposing it to be ipecachuana or tarter emetic, the operation would take place as effectually as if the real article had been adminstered.—*Dr. Collyer.*

TO CORRESPONDENTS.

The communications of Mr. R. Jones, and of R. I. are unavoidably postponed, in consequence of the length of some of our other articles.

"Extracts from a private letter" will appear in our next.

J. Grainger, J. G. Hibbard.---We shall supply these gentlemen with the information they respectively want as soon as possible.

The communications of Mr. Merryweather and Mr. Preston have been received.

The Glasgow Argus has reached us, and we shall notice the matter in our next. We shall be very glad to receive any further accounts that may appear. We would wish our correspondent to address to us at the office of the journal, until we are able to write to him.

A. Lundin. Leith.--Our correspondent will find in our leading article an answer to his principal enquiry. An average-sized head is generally considered to measure about 22 inches in circumference for a male, and somewhat less for a female. But we set little importance on these averages---men must be subdivided into classes: a much smaller development in one race is superior to a much larger in another. Our correspondent will find our views on this point more fully stated in some future number. We cannot reply to the second paragraph in his letter, as we do not exactly understand it. We shall be glad to hear from him again.

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A COMPLETE SYSTEM OF PHRENOLOGY.

IDEALITY—(*Continued*).

This faculty, therefore, constitutes the principle element of enthusiasm and exaggeration. It prompts to embellishments, and the formation of splendid and elevated conceptions. Those only who have it powerfully developed, can possibly be poets; hence the proverb, "Poeta nascitur non fit." A correct notion may be gathered of the effects resulting from a full development of this organ, by comparing the works and characters of individuals, in whom there has been a marked difference in this respect—we may refer to the writings or oratorical displays of Dr. Chalmers and Joseph Hume, both Scotchmen, with large heads, and men exercising very great influence—the former has an extremely large organ of Ideality, in the latter, it is, relatively, very deficient. Sir Walter Scott draws this sort of distinction between Blount and Raleigh in Kenilworth. Raleigh speaks of himself, as "an eagle that will never think of dull earth while there is a heaven to soar in, and a sun to gaze upon."

The same difference may be remarked in poets—all have not poetry in their souls who make rhymes, and perhaps it is not saying too much to affirm that there is more poetry in prose than rhyme. Contrast the works of Swift with those of Milton, Crabbe, and Byron—the prose of Reid or Swift with that of Sir Thomas Brown, Hazlitt, or Chalmers. Poetry, in fact, is in the thought, not in the machinery by which it is expressed. It has been described by one of our poets, as

"The charm,
That searchless nature o'er the sense of men
Diffuses,—to behold in lifeless things,
The inexpressible semblance of himself,
Of thought and passion."

This it was that enabled Shakspeare to invent and embody such ideal characters as Ariel, Prospero, &c. Prospero's concluding speech in the "Tempest," is a beautiful specimen of writing, under the influence of this feeling—

"I have bedimmed
The noontide sun, called forth the mutinous winds,
And twixt the green sea, and the azur'd vault,
Set roaring war; to the dread rattling thunder
Have I given fire, and rifted Jove's stout oak
With his own bolt; the strong based promontory
Have I made shake, and by the spurs pluckt up,
The pine and cedar; graves at my command
Have waked their sleepers; open'd and led them forth
By my so potent art. But this rough magic
I here abjure; and even when I have required
Some heavenly music, which even now I do,
To work mine end upon their senses, that
This airy charm is for; I'll break my staff
Bury it certain fathoms in the earth;
And deeper than did plummet ever sound
I'll drown my book!"

Lord Bacon says, "Poetry"—that is the manifestation of Ideality—"is something divine; because it raises the mind, and hurries it into sublimity, by conforming the shows of things to the desires of the soul, instead of subjecting the soul to external things, as reason and history do."

Hazlitt has given a very graphic description of this feeling, but all that can be said is concentrated in the brief definition, of Ebenezer Elliott, the corn-law rhymer. In answer to what is poetry, he replies,—"WHAT IS POETRY BUT IMPASSIONED TRUTH." Individuals differ very

much in regard to this feeling—some are content with mere animal gratification, while others are refined, even in vice. The sphere of activity o'erwhich ranges the ideal, is as unlimited as fancy's self. It ranges from the most mechanical pursuits, or even household drudgery, to the highest pinnacle of art or science. It is manifested by the shoemaker in the trouble he will bestow on finishing an article in his trade; it is seen in the little arrangements of the toilet, and decorations of a room, or chimney-piece. The tailor, hair-dresser, milliner, &c., all excel in the elegance of their work, in proportion to their endowments of Ideality. With a higher range of faculties and circumstances, we find it leading to the productions of a Raphael, Michael Angelo, Joseph, Byron, or Shakspeare. Combined with Love of Approbation, it helps to make a dandy, and is observed in the splendid equipages, salons, and dresses, of fashion's slaves and votaries. In some cases, the front part of this organ, towards Constructiveness, is more fully developed; in others, the upper part. Some phrenologists suppose that the organ is divided; the front part giving a desire for perfection in connection with mechanical aptitude, the upper portion the poetic feeling connected with the mental powers—fancy or imagination as it is generally denominated—the back part again, has been by some supposed to be the organ of Sublimity, but at present, these are mere surmises, but surely if phrenologists would avail themselves of the aid afforded by mesmerism, the now doubtful points might be ascertained. This organ is often diseased. Some cases of it in this state, will be found in the following examples.

Examples.—It cannot be necessary to give a long list of names of men and women, who are so well known by their works, elevated by imagination. We find it strikingly exemplified in Pindar, Euripides, Virgil, Boccaccio, Tasso, Milton, Chaucer, Rousseau, Pope, Young, Voltaire, &c., &c. The bust of Homer presents an extraordinary development of this region of the head—its authenticity has been questioned, but whether real or ideal on the part of the artists, whence comes it, that when modelling the most distinguished poet of the day, he should be represented with so remarkable a development of this organ? In Rousseau this organ was large, and a description of the morbid manifestations of the feeling in his case, will serve as a guide, by which may be estimated the healthy, as well as the diseased activity of this power. He thus describes his own feelings, "The impossibility of finding actual beings worthy of myself, threw me into the regions of fancy, and seeing that no existing object was worthy of my delirium, I nourished it in an ideal world which my creative imagination soon peopled to my heart's desire. In my continual ecstasies, I drank in torrents of the most delicious sentiments which ever entered the heart of man. Forgetting altogether the human race, I made society for myself of perfect creatures, as celestial by their virtues as their beauties, and of sure, tender, and faithful friends, such as I have never seen here below. I took such delight in gliding along the air with the charming objects with which I surrounded myself, that I passed hours without noting them; and losing the recollection of everything, scarcely had I eaten a morsel of bread, than I burned to escape and return to this enchanted world." In the collection of M. Esquirol, Dr. Gall saw the mask of an insane person who habitually occupied himself in versifying; the organ was very large. All who have distinguished themselves by the brilliancy of their imagination, as orators, painters, poets, or sculptors, may be quoted as examples of this feeling; but in many of the sciences little imagination is required to gain distinction, and even professor's chairs in national institutions. To describe with precision, after years of toil, the wings, scales, or horns of an insect, is often a sufficient recommendation. The faculties employed intellectually are not of the highest order, and surely there is little imagination required for such pursuits. For negative examples, we may observe, that most criminals have this region of the brain very little developed, and in general they are very deficient in the sentiment of the beautiful, the love of perfection, and the ideal. The head of Martin, Greenacre, Courvoisier, &c., &c., may be observed: from an inch and a half to two inches and a half, will be found the difference in the measurement of these heads in the region of Ideality, when compared with many others of equal size in other portions.

Lacenaire, the celebrated French criminal, had a considerable development of the organ of Ideality, but it was not a predominating organ. Destructiveness was the ruling organ in the lateral region, while Love of Approbation (in abuse, vanity), projected like a mountain at the back superior portion of the head, and governed all the rest. The reflecting faculties were not large, excepting Wit, which, joined to his Pride, Vanity, Hope, and Wonder produced a great amount of credulity, leading to an unbounded trusting in his own imagination, and, we believe, in his own superiority. Such was Lacenaire; and considering the circumstances and habits, together with the impunity which so long attended his perpetration of crime, we may easily understand how he became a sort of hero among the wretched beings with whom he associated. The heads, in fact, of all who have excelled in the production of the beautiful within the range of their faculties, might be cited as examples of the development of this organ; while all who delight in low, grovelling pursuits and gratifications, may be observed as negative examples.

As a negative example connected with high intellectual power, we may mention the late Mr. Cobbett, in whose head this organ is very small; and the sovereign contempt he entertained for poetry and imaginative writing, may be inferred from his remarks on Shakspeare in "Advice to Young men," and the following notice of "Milton's Paradise Lost":—

(*To be continued.*)

AN ESSAY ON THE BRAIN.

By Mr. F. S. Merryweather.

(Continued from page 106.)

It is on the fact, that the internal organization and form imparts to the cranium an exact parallelism, that the practical utility of Phrenology is based, and this point has been admitted even by our most learned anatomists. Sir Charles Bell, affirms that, "The bones of the head are moulded to the brain;" but we are by no means dependent upon the testimony of Sir Charles Bell, or any other man, however celebrated his name and discoveries. We have only to observe nature to be satisfied of the stability and truth of the fact. If we have not the opportunity of examining the brains of the human species, we can refer to comparative anatomy, for the same rule applies to the lower animals as well as to man. For corroboration of the truth of Phrenology, we must not confine ourselves to the human race, but investigate into the cerebral organizations of comparative animals, which present to us a rich and fertile field for study and contemplation, and from which we may reap a plenteous harvest of phrenological facts—facts taken from the indisputable pages of nature's truths. The ossification of the bones of the cranium is very slow, and they take a considerable time in attaining completion, which they do not till the fourth or seventh year. In the infant state, the bones are elastic and pliable, and are capable of receiving any impression. Thus the bones composing the cranium, are shaped according to the size and activity of the various convolutions. Hence, it follows, that if any particular organ of the brain, whether it be a propensity or an intellectual faculty, is large in the brain, a corresponding prominence is observable on the external surface of the skull. The number and development of the convolutions vary in different classes of animals. They are deeper, and more numerous in man than in any other animal; they are deep in the ape and dog, and well defined in the horse and sheep. The brains of birds have no convolutions, although the cerebellum is stratified. The same is the case in the brains of reptiles which are unconvoluted and smooth; in fishes, the structure becomes still more simple—so that it appears the amount of mental power, depends to a certain extent upon the number of its convolutions, which evidently perform an important office, and aid in developing the functions of the brain—the mind, which appears to be the action of a fluid analogous in many respects to electricity. We know the electric fluid is generated by surfaces. It also appears that volition is generated in the same way, and that the power is similar, for the effects produced by animal magnetism or mesmermism, bear a striking resemblance to the phenomena produced by the action of a fluid generated by animal or metallic substances. It has been found on examination, that the convolutions of persons addicted to excessive drinking, are widened, and the *sulci* distended. The brain differs in shape, in pathological, and idiotic states. It is sometimes remarkable, for "The obliquity of the cerebrum which involves a corresponding obliquity of the head, and often, also, mental alienation, although this latter does not attend it necessarily. This defect sometimes exists to such a degree that, at least, if we may judge from appearances, one-half of the cerebellum is twice or three times as large as the other."* In idiots, the head presents a retreating aspect, being greatly deficient of that part of the brain assigned to the intellectual powers; and the physiognomy appears vacant, and without that expression which denotes an intelligent mind, resembling both in actions and in mind, a being little superior to the ape.

SIZE.

Many writers have endeavoured to decide upon the quality or power of a brain by a mere reference to its absolute size, without taking into consideration the several other points, which are of equal, if not more importance. Professor Tiedmann, in a fallacious but elaborate essay, endeavoured to prove, that intellectually the Negro is on an equality with the European; his arguments are glaringly unphilosophical, his facts misapplied, and the deductions which he drew from them equally erroneous; his manner of investigation was merely to decide upon the size, without references to quality or position. Such a course is sure to fail; he scorned to take Phrenology for his guide, and in doing so, despised that truth which could alone lead him to just conclusions. He procured a number of skulls, and filled their cavities with millet seed, estimating the respective powers of each individual brain by the quantity of seed it was capable of containing. A phrenologist will instantly detect his error. He assigned quality and *intellectual* power to the posterior lobe, the seat of the animal propensities, as well as the anterior lobe the seat of the intellectual faculties. Had he taken the conformation of the two skulls into consideration, he would have arrived at very different conclusions. The absolute volume of a brain is by no means a sure guide to decide upon the amount of intelligence it is capable of manifesting. The brain of the ass is larger than that of the sagacious dog; yet who at all acquainted with their habits, will assert that their manners accord with this rule. Again, among the feathered tribe we meet with many similar instances. The eagle's brain, in point of size, is far superior to that of the almost reasoning parrot! But let one who has studied Comparative Phrenology, examine the two skulls, or the two brains, and he will instantly observe a remarkable difference. The eagle, which is by no means the most sagacious of its own tribe, will be found to possess a cranium large only at the seat of the animal propensities, having a remarkable enlargement in the locality denoted as the organ of Destructiveness, and which is evidently manifested by his fierce disposition; the form of the skull is much inferior and depressed, which is still more evident when compared with the frontal elevation of the parrot.

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* Meckels Descrip. and Path. Anat., vol. ii. p. 93.

The brain of man stands pre-eminent in point of size above all other animals, as well as in all the other qualities necessary to constitute a good brain; but although he ranks first in cerebral organization, it must not be supposed that he inherits all the combined physical powers of those beneath him; he cannot compete with the elephant for strength, or the fish for swimming, yet he is enabled, by his superior intellectual power, to subdue even the mighty elephant, or the ferocious lion. The brains of men are, on an average, larger than the brains of females. The difference in size, even among men, might be traced as one of the characteristic distinctions of nations. This is remarkable among the negro races; a fact which even Tiedmann grants, although he endeavours to reason differently. He says, "the anterior portion of the hemispheres is something narrower than is usually the case in Europeans."* And again, he says, "the brain of men who have distinguished themselves by their great talent, is often very large." This is true; but he seems to have entirely overlooked the fact, that a person may have a large brain, and yet be naturally an unintellectual individual, and *vice versa;* he asserts that all brains, however situated, have equal intellectual power. Thus, he says, "there is undoubtedly a very close connection between the *absolute size* of the brain, and the intellectual powers and functions of the mind." Now this, to a certain extent, is wrong; for size alone, without considering the other points, is by no means a fair criterion.

The human brain is found to vary exceedingly in pathological states. In idiots the brain is remarkably small, seldom exceeding in size that of a new born infant. Hydrocephalus, on the contrary, is attended with an enormous enlargement. This disease occurs generally in the infantile state, and is the consequence of an accumulation of water in the head. Children in this state present a most frightful appearance. On an examination, water is found, varying in quantity from one to six pints; and cases are known where it has even exceeded double this quantity. Sometimes there is a total want of cerebral organization. In acephala vera, instead of a brain, two eminences are observable surmounting the medulla spinalis, forming, as it were, the rudiments of that important organ; of course individuals thus constituted live but a short time, seldom exceeding a day or so. Lawrence† gives an account of a female child being born without a brain, which lived four days. These pathological cases are useful, as they tend to prove that the encephalon originates from the spinal marrow. Great difference has existed in the opinions of eminent anatomists with respect to the growth of the brain. Winsel‡ says that it is perfectly developed between the sixth and seventh year; but according to Sœmmering ‖ it acquires its size in the third year. Many facts, however, have been advanced by phrenologists to prove that it does not attain its perfect development till a much later period. Gall was of opinion that it did not arrive at its full growth till the twentieth or thirtieth year. It is even now a question involving considerable doubt and uncertainty. There are good reasons for supposing that in advanced age the brain decreases. Tiedemann says, "I have generally found the cavity of the skull smaller in old men than in middle aged persons. It appears to me, therefore, probable that the brain really decreases in old age, only more remarkably in some persons than in others." This diminution is caused apparently by the absorption of the cortical substance of the brain, which I have before endeavoured to show to be the seat of the nervous energy; and do we not, in the annihilation of this nervous element, find also a loss of mental power, which is often to such an extent as to produce what has justly been denominated a "second childhood."

WEIGHT.

It has been found of considerable importance to ascertain the weight of a brain before deciding upon the degree of intelligence which it is capable of manifesting. I say *capable*, for that is all Phrenology attempts to do; it cannot, nor does it pretend to decide upon what the individual *has*, or *will* do—but merely its natural or organic capacity *to do*. The rest depends upon judicious education, based upon the principles taught by phrenological science. In weighing brains, we must consider them in proportion to the body; without bearing this in mind, it will be subject to numerous fallacies—the elephant would exceed, in intellect, man, because it has a larger brain than even our most celebrated geniuses. Cuvier's* was not near the weight of the elephant's, whose brain varies from 5 to 7 lbs. But even the plan of weighing them in proportion to the body, is subject to many exceptions, and must often be a source of fallacy if considered alone; for the bodies of the same species are found to vary in weight on account of the different physical states of the body. Bearing these things in mind, we shall find it a test of great importance, and one which, when taken in connection with the others, will be found to bear a proportion to the intelligence or sagacity of the animal. According to this test, the brain of man stands above all beings in the scale of the animal world, and there seems an insurmountable barrier between the lowest species of mankind, and the highest of the brute creation. The brain is found to decrease in weight in old age. Tiedemann says, "It is remarkable that the brain of a man 82 years old, was very small, and weighed but 3 lbs. 2 oz. 3 dr., and the brain of a woman aged 80 years, weighed but 2 lbs. 9 oz. 1 dr." It appears, then, that in estimating the mental power of animals, these four qualities must be taken into consideration, and it is evident that in neglecting one of them,

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* Brain of the Negro compared with European, Phil. trans. 1836, p. 515, part ii.

† Med. Chir. trans. vol. v. p. 165.

‡ De penitiori struct. cereb. p. 266.

‖ Tab. baseos. encephali, p. 13.

* Cuvier's brain weighed 4 lb. 10 oz. 4 dr. 30 gr. troy.

we shall be liable to err. In studying comparative Phrenology, several circumstances must be attended to, especially the form and structure of the cranial bones; in some the skull is proportionately much thicker than in the human, and this must not be lost sight of in estimating the size and power of their brains. The bones of the skull in maniacs, are usually thicker than those covering healthy brains; and this has also been observed to be the case in idiots. It would be advisable, before deciding upon the mental power of an animal, to study anatomically both the brain and skull with care and minuteness. Let us proceed to observe, by a few illustrations, how far the fundamental principles of Phrenology are supported by an examination of the brains of the lower animals—the lowest class of the vertebrated animals constitutes the family of

FISHES.

Very little can be gathered from this department of zoology, that will tend to substantiate the present subject. The skulls of fishes are composed of numerous bones, and seem to have other purposes than merely protecting the brain. The manner fishes make their way through the water, requires that the head should be so formed, that they may with ease cut or divide that element, so as to form a passage for their progress. The brain is smooth and unconvoluted, and decidedly the most simple of any class of vertebrated animals. The parts analogous to the cerebral hemispheres, are divided a considerable distance from the medulla oblongata, which is generally larger shan the whole brain. The brain is very small, especially when taken in comparison as weighed in proportion to the body—in many species it is as 1 to 1,000, and even 1 to 3,000. In the cod, it varies from 1 to 500, and 1 to 800. In consequence of there being nothing like a similarity between the shape of the head and the conformation of the encephalic mass, we cannot apply the principles of cranioscopy in the elucidation of their intellectual powers.

BIRDS.

The cerebral organization of the feathered tribe is far superior to that of the fishes. The brain, although unconvoluted, fills the cavity of the skull, the bones of which correspond, and bear externally the form of the internal parts. The brains of birds are remarkable for their size when weighed, in proportion to the body, exceeding, in many cases, those of a higher order. Thus the brain of the sparrow is as 1 to 25, a proportion greater than the human. In submitting birds to this test, we must not forget the fact, that the bodies are proportionately lighter than those of other animals, in consequence of the peculiar construction of their bones, which are hollow, to facilitate, by the admission of air, their aerial flight. Again, the weight of the cerebral hemispheres are not so great as those parts of the brain which are supposed not to be immediately engaged in developing the mental powers. Although birds are superior to fishes in the construction of their brain, yet they are considerably inferior to the mammalia; they have no convolutions, and consequently are devoid of that superior *extent of surface* which indicates the presence of great intellect. Above all birds, the parrot must stand predominant in point of intellectual manifestations. Anecdotes and instances illustrative of its instructible power are so numerous, that it requires no assertion of mine to bear evidence to its susceptibility of education; it will be always found, by observation, that the easier they are taught, the better and more elevated their cranial or cerebral development. Look at the skulls of the falcon and eagle, birds of the same order. To a phrenologist, the superior conformation of the skull of the falcon is obvious. Its fine frontal elevation, the superior size of its anterior lobe, indicates at once the greater force of its intellect. The skull of the eagle is large, not in the frontal or occipital regions, but in those parts assigned to the worst of the animal propensities. The magpie, a species of the same genus, is also a fine bird, but differing from the others in its cerebral development; it is remarkable for its cunning, and has often been known to secrete such articles as it is capable of carrying in its bill. They have a prominence at those parts of the cranium known to phrenologists as the seat of Cautiousness and Secretiveness. The redbreast and goldfinch are birds of considerable sagacity. The latter might be taught a number of amusing tricks, being susceptible of instruction, which is conspicuous from the superior form of its cranium.

(*To be continued.*)

THE

PEOPLE'S PHRENOLOGICAL JOURNAL.

We have carefully examined our last week's report of Mr. Deseret's paper on the function of the organ of Language, and our impressions remain precisely what they were after the first hasty perusal of the article. These views afford a striking illustration of the grand defect that pervades the writings of phrenologists when they treat of the ultimate functions of the organs. Their superstitious dread of what they term metaphysical reasoning, and the consequent want of anything like rigour in their analysis, leaves them floating vaguely on the ocean of mental science, with charts little to be depended upon, and a compass whose laws are but imperfectly ascertained.* Mr. Deseret therefore is able to confront them boldly, aye, and puzzle many of

* From this censure we entirely except the analytical writings of Mr. Hudson Lowe, and there are doubtless other exceptions to be made among the casual contributors to Phrenology, but this vagueness is a pervading fault in all the standard works on the Science. We would refer our readers to

them to, with opinions that cannot receive a moment's tolerance when they are submitted to the test of rigorous analysis. In criticising his views, however, we would beg him to understand that we draw a broad distinction between the errors which we perceive in them, and the talent which he appears to have brought to bear upon the subject. It is no discredit to any one, who has adopted certain of the present opinions of phrenologists, to fall into serious errors in carrying them out; this indeed is inevitable; but it is nevertheless the duty of those who, by circumstances, or by peculiarity of mind, have had their eyes opened to the many errors mixed up with the science, to take every proper opportunity of exposing those errors. Mr. Deseret's views are a recent announcement, they merit examination, as well from the circumstances of their introduction, as from the manner in which they are supported, and we therefore feel called upon to do more than merely record our dissent from them. These are our reasons for the somewhat elaborate investigation upon which we are about to enter.

Mr. Deseret's views are embraced in the following positions:—

1st. That the organ of Language possesses the function of imparting outwardly the natural expression of the various faculties with which we are endowed, and likewise of recognizing this expression in others. Accordingly, the organ is large, in persons manifesting these characteristics.

2nd. That the organ is large in all tragic and comic performers of distinguished excellence. Likewise in great composers and singers. Accordingly, they all evince great power of imparting and recognising expression.

3rd. That all great masters (ancient and modern) in painting, sculpture, and engraving, are largely endowed with the organ of language, which they show in their works, in the giving of expression to their subjects.

4th. That in addition to possessing the power of acquiring a knowledge of artificial language, and of expressing themselves in it, poets and orators manifest a capacity for the appreciation of natural expression, in selecting objects from nature, for their similies and metaphors.

5th. That artificial language is a mere superstructure raised by art, in imitation of this class of natural perceptions.

Mr. Lowe's paper on the organ of Imitation, in Nos. XIV., XVI., and XXIII. of the Quarterly Phrenological Journal, New Series, as bearing directly upon this subject, and containing a very able exposition of the errors of the received theory respecting the functions of this organ.

How such a function, or rather how such functions as are here indicated, can be reconciled with the fundamental laws of Phrenology, is to us a mystery. If there be any truth or consistency in Phrenology, each organ can have but one function, one in an elementary and absolute sense, and the function of an intellectual organ must be the perception of some elementary quality, or relation. The above descriptions designate neither elementary qualities nor relations, but a peculiar *application* of many faculties, intellectual, and affective.* Let us see if this cannot be made evident by a few simple illustrations. We will set a portrait-painter to work, and see whether we can find in his labours any countenance for the opinions of Mr. Deseret.

In the first place, we will have portrait of a *Triangle*:—our readers must not be startled with this novelty, there is nothing like beginning with the beginning.—Very well then, our artist sets himself before one of those geometrical figures in which three straight lines meet at three different points. His first task is to perceive the exact length, position, thickness, colour, and superficial smoothness, or roughness of these three lines. This we presume his organs of form, size, number, locality, and some few others will enable him to accomplish easily. His next task is to repeat this perception sufficiently often to have it vividly impressed upon his memory. When this is accomplished, he transfers the image from his mind to his canvass, occa-

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* We do not object, on these grounds, to Mr. Deseret's views alone. We have similar fault to find with those of most other phrenological writers on this very point. For instance, Dr. Spurzheim after telling us that it is the higher intellectual powers which invent arbitrary signs for our ideas, finishes by the extraordinary announcement that "the faculty which learns the arbitrary signs is quite different from those which invent them;" and that it is the organ of Language which "makes us acquainted with arbitrary signs, has memory of them, judges of their relations, and produces a propensity to the employment of these functions." (Physiognomical System, pp. 382 and 387.) There is surely enough in these sentences to countenance the wildest of the extravagancies into which some later phrenologists have rushed. One would think that the powers which created artificial signs would be the proper ones for perceiving and remembering them, and judging of their relations.

Mr. Deseret contradistinguishes between the powers of giving *natural* expression to our feelings, or to a work of art, and the power of mere

sionally refreshing his memory with a glance at the original. Presently his task is accomplished, and we have an exact counterpart of the original in its form and size, and colour, regularity or irregularity of outline. This then we assert is a perfect portrait, correct in outline, in colour, and in "expression." In this portrait, at all events, there is no such thing as expression, distinct from mere colour, configuration, &c.*

We will next have the portrait of a *Sphere*. In this case also, the process both mechanical and intellectual, will be exactly the same as that just described. It will be simply more elaborate. An aditional idea is introduced, that of solidity, but even this is produced by the powers spoken of—solidity and perspective being represented to the eye by a certain diminution of the *size* of distant objects, joined to a corresponding diminution in their distinctness. In regard to this portrait also, *expression* has no existence as a distinct quality.

Let us now have the portrait of a *Castle*. It matters not how extensive or complicated the object, it presents us with nothing but configuration, size, colour, number, perspective, position, and such like properties, all of which are included in the representation of the very simplest forms. No one ever speaks of the expression of a castle, as distinct from its accuracy of drawing and colour. If we next call for the portrait of a tree, or a group of trees, or a whole landscape, it is clear that there will be no new element to be introduced, there will be merely a more elaborate combination and repetition of the simple elements already spoken of.—Still, we know nothing of expression as distinct from configuration.

Finally, let man be our subject. What has our artist to do in order to give a perfect portrait of a human being? He has to represent his exact form, and his exact colour, that is all. We have never beheld a portrait in which there was anything else. But a man is a living being, some portions of his body are capable of assuming a variety of forms, and presenting also several modifications of colour; and many of these forms and colours are indicative of particular mental qualities, and of states of mind more or less transient. The artist has to represent his subject under some or other of these varying forms. He has to make his choice, and as this varies, so will the portrait vary, or the expression if you prefer that. But it is absurd to talk of expression as distinct from form—to talk of correct drawing and a want of expression. A portrait may be *generally* correct in form, and deficient or inaccurate in expression; but it cannot be *minutely* accurate in form, and still fail in expression. It is mere mistification to separate expression from form.

But then again the expressions of the countenance—in other words, the forms which the moveable parts of the face assume, are very varied and very transient, and yet it is important for the artist to seize on some of these in preference to others, so as to represent the individual under his habitual, rather than under an occasional expression, or cast of features. To do this requires both memory and skill, and an individual who had never felt the emotions indicated by the cast of expression he had to represent would labour under great disadvantages. Still if the requisite intellectual powers were in high manifestation, if he knew that a minutely accurate representation of what was before him was indispensable, and if besides the sitter could maintain that one expression until the portrait was finished, there can be no doubt that a perfect likeness could be produced by him. No one, for instance, will deny the possibility of having an exact copy taken of a statue, whether the artist is a master of expression or not. Now a statue, as far as painting is concerned, is merely a living being fixed in one attitude, and in one expression. Let us suppose that the statue has a

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imitation. We really cannot see the distinction, unless by imitation he means a mere approximation to resemblance. He is not the first, however, who has separated *expression* from mere imitation. Something like what he claims for the organ of Language has already been attributed to that of Secretiveness.

* Neither can we see what an organ of imitation had to do in the case. There is merely intellectual perception and memory, and a motive supplied to the general mind for giving, by the aid of the mechanical powers, a *visual* existence to a mental impression. The motives for doing this may be infinitely various; all therefore cannot be supplied by one organ. Besides, if a special organ of imitation is needed to enable us to *draw* a triangle on paper, it is equally needed to enable us to describe one in words. In the one case we merely give a visual existence to an idea, as in the other we give it an auditory existence. In the one case we transfer our idea to the mind of another by means of light, in the other by the means of sound. At all events, whatever may be said about imitation, expression—whether *natural* or artificial, has no separate existence in the above portrait.

marked expression of haughtiness, and that the artist has never felt the emotion of haughtiness, nor ever heard of it either. Still there is a particular form before him, and he understands what form is. There is nothing for him to do but represent exactly a peculiar combination of the elements of all form, and one combination of these elements is about as easy to a good artist as an another. Let it be very much to his interest to make his work a fac-simile of his model, and the thing will be done, so as to deceive the best judges, even though he knows nothing about haughtiness. If, however, he were executing an ideal work, haughtiness would certainly not be one of its characteristics, or if he were taking a copy in which such minute and fractional accuracy as we have spoken of, was not needed, he would be very apt to fail somewhat in the expression of this feeling. In other words, the possession by the artist, of the feelings of which particular forms of countenance are indices, is necessary for two reasons, first to fix the attention on minute variations of form, by shewing that they have a specific meaning, and that they are matters of high consequence; and secondly, to aid his recollection of them, on the principle that we remember best that which we regard with most attention and interest. Thus the notice of one artist is most readily attracted by those forms which indicate love and friendship, another is most struck by the indices of loftiness, or fierce passion, or calm dignity, or intellectuality, &c., each finds it easiest to represent those forms which express the feelings most vivid in his own mind. Here then the elements of representation are the simple intellectual powers already spoken of, and the feelings to be represented, and these latter are requisite only for the sake of fixing the attention upon what might otherwise be thought too trifling to deserve notice. But we can still conceive it possible to dispense with their aid where the highest artistic powers are conjoined with an assiduous study of the human countenance. For example, if we place before two artists of equal talent, one of whom is also an excellent mineralogist, some very complex mineral, we know, at once, which will give the most correct representation of it. But if we point out to the other artist its essential characteristics he will then be able to give us a more correct picture, though the task will be far more difficult to him than to his companion. Thus, also, if two sculptors of equal talent, one of whom was a phrenologist, had to execute busts of a bald-headed man, we know that the head of one would in all probability be far more accurate than that of the other, because he would attach a meaning to every little variation of surface. So that if there were a perfect science of physiognomy, and an artist were profoundly learned in it, and possessed besides a great memory for forms, he might certainly be an excel-portrait painter, how deficient soever he was in many of the feelings. On the other hand, the possession of these feelings, enables the artist to dispense with a portion of this memory, and with the whole of this learning. At all events it is clear, that the portrait painter has merely to represent the forms and colours before him; when he does this, with due accuracy, his portrait is in every respect correct. When it is correct in form, it is correct in expression. To talk about expression as distinct from form, or imitation as distinct from form, or "*natural* expression as contradistinguished from mere imitation," is to talk without meaning.

"Mrs. Siddons had the organ of Language very large," says Mr. Deseret, "and the characteristic feature in her acting was expression. Why what else could be the characteristic of good acting? Mrs. Siddons represented in her limbs and in her features the particular forms indicative of certain passions, and her voice also assumed the tones natural to those passions; this representation, or "expression," was not merely a "characteristic feature" in her acting, it was her whole acting, as far as that acting was correct. We are also told that a person with the organs of form, space, and the other perceptive faculties, large, combined with motion when he looks on the features of a face, "detects with perfect accuracy each small outline, lineament, and portion of space going to make up the whole, and can group them with the utmost facility, but (the organ of language being deficient in him) these do not awaken in him, or suggest to him the corresponding emotions in his own nature, of which they constitute the expression in the face before him, and he accordingly gives you a stiff, hard, well-coloured outline, without expression." If the outline is without expression, it is a very incorrect outline. If it gives the exact form of the individual, at the moment of taking it, it must also give his exact expression, expression being only another term for indicating the *transient* forms of the body. If a person thus organised can detect with perfect accuracy each small outline, lineament, and portion

of space going to make up a countenance, and group them with the utmost facility, that is to say, if he can seize with the utmost facility (for such is the obvious meaning of this sentence) all the minutiæ of form and colour in a given face, we do not see what else he has to do, or what is to prevent his giving that exact form and colour, in other words, the exact expression of the countenance. But we cannot stop to notice all the errors of this kind that are scattered through this report. Were we to do so we should have to quote almost every sentence, for when a false principle is once assumed, innumerable errors become inevitable.

We now pass on to another vital error in Mr. Deseret's views. He asserts as his fundamental principle, "that the organ of Language possesses the function of imparting outwardly the natural expression of the various faculties with which we are endowed, and likewise of recognising this expression in others." According to this, a man who had no organ of Language would be incapable of giving any outward expression to his feelings, neither would he understand any of the manifestations of feeling in others! Is it possible that we understand Mr. Deseret's meaning here? We do not see how it can be otherwise. If this be not his meaning, we can see no meaning in the whole paper, for this is the burden of it all. If this be his meaning, it is one of the most extraordinary positions we have ever heard assumed in Phrenology. According to this, without the organ of Language, a man in a passion cannot display any passion, the blood will not flow to his face, every muscle will be at rest, though he has no motive whatever for concealing his anger. According to this, if he is burning with love, and the object of his love is before him, and he is intensely anxious to display his love, and there is no external obstacle whatever to his doing so, yet, if this organ be deficient, his face will be perfectly passionless and expressionless, his arms will hang by his side, and he will look like an idiot, or rather like nothing at all. According to this, if a man receives a blow, and his vindictiveness invites him to return it, he cannot raise his arm to do so, he cannot manifest the natural language of vindictiveness without this organ of Language. According to this, if one saw another storming with rage, or writhing in agony, or convulsed with laughter, he would not have the least conception of what the whole meant, unless he possessed the organ of Language. According to this, man could not perform a single action, instinctive or voluntary — for all these are but the outward expression, and the natural language of inward feeling, unless he possessed the organ of Language. Finally, according to this, a man whose temper was slightly ruffled, if he had a very large organ of Language, would display more emotion than another who was boiling with rage, but in whom that organ was small; and so on *ad infinitum*. If this be Mr. Deseret's view of the function of language, we certainly cannot join him in his belief. This position is so extraordinary, that we should be disposed to adopt almost any interpretation of the passage we have quoted, rather than the one we have chosen, could we see any reason for doing so. But we cannot, every thing bears out this meaning. We have even the directest confirmation of it in one of the illustrations. Two children are spoken of, the one having "a large and prominent;" the other "a small and deficient" organ of Language; the general organization being highly favourable, and much alike in both.

"The one possessed a facility and felicity of expression not evinced by the other. The one had a gay, hillarious, highly excited expression, while the feelings of the other, evidently of the same kind, seemed to struggle for expression in every feature of the countenance. You could read the feelings of one, at a glance, while those of the other, though anxiously desiring to be unfolded, appeared to be crushed as it were in the bud, and forbidden their natural manifestation."

The meaning here seems evident enough; but the case of the latter of these children, is pushed beyond all bounds. Surely, the child would have had no difficulty in crying, if it was hurt; or in laughing, if it was amused; or showing satisfaction, if it was pleased, &c. If it had, it was a phenomenon of a child. We have never come across any such. Mr. Deseret will not maintain that the organ of Language is well developed in an infant, and yet an infant can express its own feelings quite as well as Mrs. Siddons or Garrick could express theirs. Every one, of course, is aware, that some persons have a much more speaking countenance, and more vivid gestures than others; but this is an affair of temperament and the secretive tendencies; and therefore children, usually, stand stand pre-eminent in respect to expressiveness of countenance and gesture, whether their eyes be large or small. In fact, all men are perfect actors in regard to their own feelings, it is only when representing those of

others, that there is any difficulty, as they have then to support two characters at once.

The natural language—"the natural (outward) expression of the various faculties with which we are endowed," consists chiefly, as every one knows, in certain muscular movements which usually take place instinctively, and unconsciously, when the corresponding faculties are in action. They do not always take place, because nature, for obvious reasons, has given us some degree of control over them. We can, to a certain extent, restrain them, or excite them at pleasure. But every one knows, that in certain states of intense mental action, they are wholly beyond our control, and that in no sense whatever, and in no degree whatever, can they be said to be a human invention. Now, would it not be a most extraordinary arrangement to have all these presided over, and regulated by a single organ? That organ must be in direct communication with the whole natural system, and with all the cerebral organs. It must be differently affected by each of these organs, or it must be composed of as many parts as there are organs to affect it: and it must convey to the nerves of motion as many different kinds of influence as there are different kinds of motion to be produced. In the one case, a single organ will have to perform a variety of functions; in the other, we shall have, not an organ, but an apparatus, a distinct brain in miniature. Now, what is the use of an intermediate stage of this kind? Cannot each organ of feeling be made to affect the motive nerves directly, as well as through the instrumentality of a little organ in the anterior lobe? Do we ever find nature displaying complexity in her machinery where simplicity would answer? Besides, if a hundred organs were to act upon one organ, they could not possibly produce more than one kind of effect on it. They could only make it move more or less rapidly. It might vibrate, or it might contract and relax, according to its particular nature; but no matter how many agencies are at work upon it, its essential, its only real excitant is *motion*; and its only function is to communicate that motion to something else; this is all that material organs can do. The changes produced in the cerebral organs are simply mechanical; they cannot be *chemical*, otherwise the organs would be in a state of perpetual change of structure. To talk, therefore, of one organ performing many different functions, is not only unphrenological, but absurd. To talk of an organ being variously affected by different excitants, is also absurd, and for the same reasons. Again, if the view we are combating be correct, Nature has left the whole social existence of man, and in a great measure his individual existence also, entirely dependent on a single organ, and that one of the least protected of the cerebral organs. If this organ of language be diseased, or wounded, or wanting, we cannot communicate any of our feelings or thoughts, or know any thing of those of others. This is not the way Nature works. Finally, it must be remembered that each organ can have but one function: if, then, the organ of Language takes cognizance of the outward expression of the various faculties, it perceives and remembers forms, and sizes, and localities, and colours, and sounds, &c. &c., thus performing a great many functions. If it does not take cognizance of these things, of what does it take cognizance, for it is in these, and in these alone, that expression consists?

In regard to the numerous facts alluded to by Mr. Deseret, we need say little, even if our article had not already far exceeded our usual limits. Facts cannot prove a fallacy; neither are these facts of a nature to necessitate the conclusions drawn from them. If they were, any of them would be sufficient to prove the position assumed. We think Mr. Deseret has generalized his assertions, in regard to these facts, to an unwarrantable degree, and we know that a multitude of contradictory facts can be adduced against him. Several at once occurred to ourselves, and we doubt not but the experience of every manipulator will furnish many others. In plain terms, we regard what is accurate in these statements of fact, as simple coincidence; nor is this so strange a thing as might at first be thought. Imitators, artists, poets and orators of the highest order, have a great many traits of character in common. These traits, in high manifestation, are the prerogatives of certain races. Most, if not all of these races have prominent eyes. Other races, who have quite as little difficulty in manifesting their feelings, have the eyes small and sunk in the head.

Such is the nature of our objections against Mr. Deseret's theory, If we have misunderstood him, or in any way done injustice to his opinions, we trust he will give us an opportunity of repairing the injury. If he wishes to explain or defend his positions further, we shall be happy to afford him every facility in our power for doing so.

INTELLIGENCE.

We perceive by the *Glasgow Argus* of the 14th inst., that Dr. Collyer has commenced a course of lectures on Mesmerism in that city. His introductory lecture, delivered on the previous evening, is most favorably noticed in that paper. The experiments performed on the occasion, if not very novel, are at least very striking, and for the most part very decisive, and as the account given of them is well drawn up, and sufficiently concise, we shall lay it before our readers, without abridgment.

We regard Dr. Collyer as so superior in talent and judgment to the generality of professed lecturers on Mesmerism, that we shall watch his experiments with a good deal of interest. From the little we have as yet seen of his opinions, we think he has done much for this science, and that he is calculated to do much more. He possesses abundance of enthusiasm, activity, and energy, and, if we are to judge from the little work of his, noticed by us some time since, we should say that he possesses still more important requisites in his judgment, fearlessness, and candour. We trust he will meet with every encouragement in his labours, and that he will have firmness enough to resist the temptations that beset a popular lecturer, and always uphold the dignity and real interests of science.

We have but two additional remarks to make in reference to the subjoined experiments. In the first place, some of them are of a rather more painful character than suits our taste. The pain to be sure is momentary, but it is still pain. Experiments of this kind are usually the most satisfactory, in point of evidence, but that alone is not a sufficient excuse for their employment. In making patients lift weights and bear pressure, the greatest prudence is requisite, otherwise serious and cruel accidents might result. Indeed, we look upon it as one of the greatest marvels of Mesmerism that so little real mischief has yet occurred in connection with it. The other point we would mention is this. It would seem from the account, that previous to the experiments with the sixpence and tippet, Dr. Collyer spoke of the results he was about to produce in the hearing of the patients. If so, the fact would greatly diminish their value in the eye of an unbeliever. We mention the circumstance, because we have no doubt ourselves that the Dr. could produce the effects equally well by a mere effort of volition, without speaking at all. The account is as follows :—

DR. COLLYER'S FIRST LECTURE ON MESMERISM WITH EXPERIMENTS.

Last night, Dr. Collyer, from America, delivered a short introductory lecture on Mesmerism, in the Assembly Rooms, accompanied by experiments hitherto unknown in this city, and certainly very extraordinary in their character. His lecture was exceedingly philosophic in its spirit, but, as he did not enter upon a detailed exposition of his views of Mesmerism, leaving that for a future opportunity, we shall not attempt any notice of it, but proceed at once to give some accounts of his experiments. A little girl, about eleven years of age, was brought upon the platform, and placed in the Mesmeric sleep in a few seconds. The girl, who before had manifested a meek, retiring disposition, was now completely changed in her manner. She became pert and forward, moved about in a restless way, and chatted much, denying, when questioned on the subject, that she was under Mesmeric influence, a point, the lecturer observed, on which she is always obstinate when in the sleep. Dr. Collyer put her arms in the rigid state, and, to prove the great additional strength which they had thereby acquired, invited any gentleman from the audience to put them to the test by resting upon them the whole weight of his body. A gentleman accordingly went upon the platform, and placing his hands upon her arms near to the shoulder, raised himself up without causing them to shrink in the least, though he exerted no little force for that purpose. It was next proposed to test the girl's power of reading with her eyes shut, and Dr. Collyer asked any one who chose to hold down her eyelids while doing so, in order that the impossibility of seeing in the ordinary way might be made evident to the audience. The girl herself, though her eyes were plainly shut, selected a gentleman for this purpose, pointing him out by describing the position he occupied in a seat before her, This gentleman at once responded to the call, and presented her with a copy of "Bentley's Miscellany," holding at the same time her eyelids tightly down with his fingers. After examining the page for some time, however, she said she could see no print, and the attempt was for the time given up, the lecturer explaining that the lucidity was sometimes exceedingly defective at first, but that in all probability she would soon be able to exhibit the phenomena. This was found to be the case, for shortly after, when a copy of the "Comic Almanac" was put into her hands, she read several words very distinctly occasionally stopping at very "hard words," as she called them, just as a child learning to read is often found to do. She also described a picture in the book; and afterwards read a line or two from the programme of Mr. Wilson's Scottish Entertainments, which was handed up from the audience. During these singular experiments the eyelids of of the patient were at first firmly held down by a gentleman's fingers, and afterwards she was blindfolded with a handkerchief in such a way as must have convinced any person that she could not see in the ordinary way. A young man who accompanies Dr. Collyer was then thrown into the Mesmeric sleep, and his arms and legs put into the rigid state, one of the latter being so firmly rooted to the ground that he found it impossible to move it. Dr. Collyer explained that this was produced by acting upon the will of the patient in such an irresistible way that he had not the power to overcome it. To illustrate the matter further he placed the patient's hand on the back of a chair, when he found it utterly impossible to remove it—it stuck to the wood as firmly as if it had been a part of the chair itself. He then exhibited a very singular experiment to prove the effect which can be produced on the mind or imagination of a mesmeric patient. He placed in the lad's hand a sixpence, explaining to the audience that he would so work upon his mind as to make him feel from the coin all the pain which could be produced by a piece of hot iron, and that in fact he would imagine it to be hot. Having clenched his hand rigidly upon the sixpence, in a second or two the lad began to mani-

fest great uneasiness; this increased to symptoms of pain, and latterly of torture, and he exhibited all the appearance of a person labouring under intense agony, beseeching Dr. Collyer to relieve him, and following him all over the platform with tears in his eyes. It was absolutely painful for the audience to look on during this scene, but at length, by the will of the mesmeriser, expressed by a slight motion of the arm, the hand was opened, and the sixpence thrown away with a convulsive heave. Even then he believed that he had been burned, and declared there was a blister upon his hand. A further exertion of the will of the mesmeriser, however, removed this delusion also. It was then stated by Dr. Collyer that he could make any article assume, in the eye of the patient, a totally different appearance from what it really was. A fur tippet belonging to the girl lay upon a chair, and he offered, at the will of the audience, to make it appear to the young man a dog, a cat, a lion, a tiger, or a snake, or indeed, any animal which they might choose to name. A snake was agreed upon, and in a few seconds the patient began to stare at the tippet in evident perplexity and alarm. He made several efforts to seize it, but as often retreated in great terror. The girl, who was not under the delusion, laughed heartily, though still in the sleep, at his fears, and, snatching up the tippet, put it round her shoulders. This increased his alarm, and, rushing forward, he attempted to pull the "noxious creature," as he thought it, from her. Again, by the will of the mesmeriser, the delusion was taken away, when he appeared to be much perplexed at finding it once more a fur tippet, instead of a snake, before him. Several other experiments were made. Dr. Collyer placed the two hands of the patients together, when they adhered to each other with great tenacity, each trying to get away without being able to accomplish it. The young man, being the strongest of the two, drew the girl after him over the platform, to her great annoyance, though much to the amusement of the company. Here again the will of the mesmeriser separated them. The lecturer now offered to show that he had the power of completely changing the taste of the patients—making what was bitter and nauseous feel sweet and pleasant, or the reverse. A cigar was handed him by a gentleman, which he broke in two, giving part to the young man and part to the girl as sugar-candy. They began with great eagerness to eat it, and smacked their lips with much seeming relish. While the process of munching what they regarded as sugar-candy was going on, the Doctor reversed the process—he banished the delusion, and, amidst the laughter of the audience, both patients began to exhibit the usual symptons of nausea, and voided the tobacco in evident disgust. The effect upon the lad appeared to be anything but agreeable--he left the room quite sick, and, in an adjoining apartment, vomited very freely. The above are the principal experiments exhibited by Dr. Collyer, and they seemed to be regarded with equal interest and wonder by the audience, which, though small, was exceedingly respectable. On Saturday evening next, Dr. Collyer delivers a second lecture, in which he is to enter more fully upon the principles of mesmerism.

CORRESPONDENCE.

MESMERISM.

(Extract from a private Letter.)

Last evening, my nursemaid, Hannah, was mesmerised by Mr. Kiste. When called into the parlour, she said she had no fear of mesmerism, but she could not stay *then*, having much to do. We urged her only to remain a short time, but she refused, earnestly begging us to let her go. I was, however, unreasonable enough to detain her, and in this rebellious spirit she most unwillingly sat down, saying, " she was determined not to go to sleep, for it was a shame to keep her from her work on Saturday night." She was very fidgetty and impatient, starting up every few minutes, and asking to go; she said, laughing, " that no mesmerism should send her to sleep then," in about half an hour we saw the influence gradually stealing over her, her eyelids drooped heavily, and though occasionally she made a faint effort to go, she appeared invisibly attracted to remain; in a few minutes more, she slept profoundly. Mr. K. lifted up her hand and arm, and allowed them to fall on her lap, she was quite unconscious of the disturbance, and slept on. We spoke to her, but she took no notice, Mr. K. took her hand and asked her several times how she felt, at last she replied with great effort, " very comfortable;" many other questions were put to her, which she answered correctly, but with apparent reluctance. Mr. K. desired her to open her eyes, she did so, and her expression of countenance was altogether new, she kept her eyes open without appearing to see, presently she got up, saying, " she must go, as baby would want her," she tried to push by Mr. Kiste, he quietly and gently detained her with one hand, continuing the mesmeric passes with the other; she instantly yielded, closed her eyes *as she stood*, and presently sat down again, as if overcome with sleep; when she had been in this state about an hour and a half, I asked her what time it was (myself having no idea of the hour), she answered, " it is eleven o'clock," not supposing it was nearly so late, Mr. Fry drew out his watch, and to our surprise it was *exactly eleven*. We said nothing, but I thought it so remarkable that I resolved to try the same question again. Mr. Kiste then directed his attention to mesmerise the right hand and arm, and continued the operation about ten minutes, we observed no result, and Hannah appeared so soundly asleep, that she allowed her arm to be raised and let fall heavily on her lap several times without observing it, or appearing in any way disturbed. Soon after this, I again asked her to tell me *the time*, she looked at me very wildly, and said, " It is a quarter past eleven." This was again perfectly correct, and after a few more questions, Mr. K. demesmerised her. She was immediately restored to her usual appearance, spoke cheerfully and laughingly, and said she did not think she had been to sleep. She was now perfectly awake, so I asked her if she knew what *time* it was? ' Oh, how can I tell, I'm sure I don't know, I seem to have been here a long time, I should not wonder if it was half-past ten, or nearly eleven." On telling her it was still later, she was much astonished, and when I had told her she had answered my question correctly before, she was quite oblivious, and evidently knew nothing about it; this convinced her that she had been asleep.

The next morning, Hannah came to me and

asked, "Did Mr. Kiste do anything to my hands last night, when I was asleep?" "Yes, he mesmerised one hand and arm for nearly a quarter of an hour." "*Which hand?*" "Your right hand." "Well, that is very wonderful, for I had a gathering on my right hand, so painful, it made me almost mad; when Mr. K. was mesmerising me I forgot it, and on looking for the sore place this morning, I find it is all going away!" This is the more remarkable from the state the gathering was in, not come to a head, ready to suppurate, but in the most inflamed state of forming.

There are several interesting features in this simple case. The extreme unwillingness of the girl to be mesmerised at that time, her opposition and determination not to sleep, *yet she slept* for nearly two hours; her laconic and correct answers respecting the *time*, when asleep, yet her rambling, *erroneous* answer to the same question when wide awake; again, as regards the sore finger, Mr. Kiste knew nothing of it, therefore paid no attention to it, and the girl expecting no result did not think about it. Here was nothing preconcerted, yet the girl, after her cautious questions, honestly asserts that her painful gathering was cured by mesmerism.

October, 1843.—On Monday, Hannah consented to be mesmerised a second time, she came timidly, but not unwillingly, and Mr. Kiste commenced operations, whilst I made notes:—

Four minutes to eight.—Sat down calm and quiet.

Ten minutes past eight.—Eyelids drooping.

Fifteen minutes past eight.—Sleeping gently.

Thirty minutes past eight.—Still sleeping; starting at a noise.

Twenty minutes to nine.—To the question, are you asleep? says, "*No*, I should like to sleep."

Fifteen minutes to nine.—Answers reluctantly, as if overpowered with drowsiness.

Ten minutes to nine.—Appears annoyed at being disturbed, but speaks distinctly, says she is not at all asleep, and wants to go. Mr. Kiste desired her to go, says he will not trouble her longer. She takes no notice, he then says, "well, if you do not go, I must, so good bye," and walks to the door. She immediately follows. Mr. K. returns, she does the same, and sinks into her chair as if overpowered with sleep. Mr. K. stands behind and resumes the mesmeric passes, she sleeps so profoundly that she allows Mr. K. to raise her arms and let them fall heavily on her lap, and is evidently quite unconscious. Her countenance is dull and heavy, as if one in deep sleep. Mr. K. applies his fingers to the organ of *tune*, in a few moments she raises her head, opens her eyes with a clear, bright look, and turns in attitude of listening. "What are you thinking of, Hannah?" "*I'm not thinking, I'm listening.*" "What do you hear?" "*Beautiful music.*" "What music?" "*It is like the organ I heard on Sunday.*" "What tune does it play?" "*It's a new tune—stay, I want to learn it.*" Mr. K. removed his fingers; her countenance fell instantly, as she said, "*Oh it's gone.*" He replaced his fingers. "*There! hark! I hear it again.*" She smiled, and listened with great delight, and seemed surprised that we could not hear it. Mr. K. removed his fingers several times, and she always sighed, and said the organ was gone. Mr. K. then touched Benevolence, her look became pensive and sad. "What are you thinking of, Hannah?" "*My mother.*" "Why do you sigh?" "*She is bad, Sir.*" "Do you love your mother?" "*I should think so, I wish she was here.*" "Why do you wish she was here?" "*Because you would cure her.*" "Do you think I could?" "*I am sure you could, you cured my finger.*" "Perhaps your finger got well by chance." "*Gatherings don't get well by chance. Mesmerism cured it.*" "How should I cure your mother!" "*Mesmerise her to be sure, she'd sleep so nice.*" Whilst continuing in this strain, Mr. K. directed his attention to Self-Esteem, the change was most extraordinary; she drew herself up, tossed her head, compressed her lips, and looked the personification of disdain. "What are you thinking about, Hannah?" She only answered by a look of scorn, crossing her legs, bouncing herself in her chair, and abruptly turning her back to me. "What is the matter, Hannah, what are you thinking of?" "*I like to do as I like.*" "Why do you turn your back to Mrs. Fry?" "*She shall have my face if she likes it better,*" and with the most contemptuous look, she gazed at me as from an eminence. "Hannah, I fear you are very rude." "*If you think so, you think wrong.*" She continued in a strain of most arrogant self-importance, till Mr. K. returned to Benevolence, when her countenance became amiable, and she began talking about an imaginary poor man, for whom her compassion was much excited; she wanted, and attempted, to take off her shoes to give to him. Mr. K. then changed about from one organ to another, and the manifestations were as decided and distinct as if she had understood Phrenology, and arranged her observations to suit the organs excited. Shortly after this, Mr. Kiste inadvertently touched his foot, Hannah immediately stooped and touched hers in the same manner. I privately gave Mr. K. a needle, he pricked his hand, Hannah rubbed her hand in the same spot, and looked as if expecting to see it bleed. Mr. K. went to a little distance and pricked his own knee, his elbow, his head, &c., in every instance, Hannah felt the smart and seemed much irritated, and at last said, angrily, to Mr. K., "*Sir, why do you prick me?*" Mr. K. then walked about the room, threading his way between the chairs and tables. Hannah followed him exactly, looking so entirely helpless, and overpowered with sleep, that several times she seemed likely to fall. Mr. K. got up on the sofa, Hannah followed and stood beside him, he then stood on a chair, which being small, we thought Hannah would be unable to get on, but she seemed compelled to do all her mesmerist did, and without hesitating she stepped up on the chair also. Some one in the room went behind Mr. Kiste and pulled out a hair from his head. Hannah started and rubbed her head behind. M. K. placed himself in different uneasy attitudes, all of which Hannah imitated exactly, *without having seen Mr. K.*; for instance, when Hannah was standing with eyes closed in apparent sleep, Mr. K. placed himself so that she could not possibly observe him, and raising his arm over his head, stood holding his arm nearly perpendicular, Hannah sighed and immediately did the same; every effort of the kind seemed annoying to her, as if it disturbed her sleep. When she had been in the mesmeric state for above two hours, Mr. K. asked her if he should demesmerise her. "*Why should you? I am so comfortable.*" Mr. K. considered it best to arouse her, and in about half an hour she was restored to her natural state. She did not retain any recollection of what she had said or done, and had not her sister and several others (on whose veracity she could depend) been present, she would not have

believed that she had either spoken or risen from her seat.

It may be satisfactory to observe that Hannah James has lived with me above three years, and I have never detected her in deceit, falsehood, or even equivocation. We have always valued her simplicity and love of truth.

The points that especially interested us in this case were—

1st. The lively and *distinct* manifestations of different organs, under the influence of Phrenomesmerism, *although* the person mesmerised knew *nothing* of Phrenology.

2nd. The beautiful phenomenon of *attraction*, the mesmerist acting to the mesmerised, like a magnet to a needle, moving it at will.

3rd. The wonderful sympathy that at length established itself between the mesmeriser and the mesmerized. Pain inflicted on one, was instantly felt by the other without personal contact.

To the Editor of the People's Phrenological Journal.

Sir,—The question of insanity is at present very properly occupying a most prominent place in the public mind, and more especially that of the phrenological world, to whom, for this reason, a debt of the deepest gratitude is due, which, if not paid them by the present generation, undoubtedly will be by the next. In the discussion of this question, the prevailing opinion appears to be, that the kind of treatment to which the insane ought to be subjected, should be determined by the degree of accountability (another word for responsibility) adjudged to the particular description of insanity under which a given individual may have been, or may then be labouring; with all of which I perfectly agree. The only objection I maintain is, that accountability, in any degree, should not imply punishment. The prevailing treatment of the insane, breathing throughout the purest spirit of the tenderest kindness and benevolence. The word *punishment* ought to be at once and for ever expunged from the vocabulary of the phrenologist. Motives to actions may, can, or ought to be supplied without inflicting pain. However, the greatest difficulty which I can conceive connected with this question, is to define properly, distinctly, and intelligibly what is insanity—what it consists of—what are its undeniable characteristics, so that it cannot possibly be mistaken for something else, which is not insanity, or where does it begin, and sanity end. Before any rational progress can be made in this deeply interesting subject, these questions will have to receive a calm and dispassionate consideration, and before a truly philosophical conclusion can possibly be arrived at. For an excessive development of one or more organs is considered to produce an eccentricity and waywardness of conduct, and also to destroy the harmonious action of the brain, and consequently to produce one species of insanity; or in other words, this is insanity proceeding from one of its numerous causes. Therefore, if excessive development of one or more organs produce a species of insanity, there must of necessity exist every corresponding degree of insanity, as every imaginable intermediate degree of development may and does exist; for if actions are determined by organization in cases of excessive development, and if the excessive acts of the one, resulting from his excessive development, are to be leniently dealt with, why are not the less extravagant acts of the intermediate degrees of development to be treated with equal lenity? And if so, may I not ask where does responsibility (in the sense of punishment) begin, and where does it end, just as much as I make the same enquiry relative to insanity. I hope that this mode of treating the question of insanity will not lead you to suppose that I purposely intend it as a hobby-horse to ride on to that vexatious question of general responsibility. No; in my estimation it is too sacred and too deeply interesting, to be subordinated to purposes of any speculative or debateable question; but I desire to see phrenologists consistent throughout with themselves and the principles of their science, and editors fearlessly discharging their duties, regardless of established or fashionable error—doing all in their power to promulgate truth, to combat error, and elevate the mental character of the rising generation. And who so well qualified for the momentous task as the experienced practical phrenologist? As we are frequently taunted by ignorant insolence with shrinking from the legitimate deductions of our science, let it be seen that there are at least some who dare publicly avow the persecuted, the misrepresented, but the philanthropic doctrines of Phrenology.

Yours, very respectfully,

R. I.

Liverpool, Dec. 9, 1843.

P. S.—Sir,—When considering the important bearing the subject of human accountability has on our criminal laws, I am sincerely of an opinion that phrenologists cannot possibly be better employed than in discussing and clearing up the difficulties which naturally beset a question of such paramount importance—a question peculiarly their own, and which, when properly understood, must greatly tend to the amelioration of our criminal code, by teaching us to treat all mental, just as much as we now do physical aberrations of nature, as cases of disease only, and substituting the terms change and reformation, for punishment and pain of person.

To the Editor of the People's Phrenological Journal.

Sir,—As Dr. Keenan's discovery of the functions of the lungs, namely, that they are essentially a galvanic battery, shews the use of the greater part of the food to be that of a base, to be oxydised by the air in breathing; it follows that digestion, instead of being a process of oxydisement of the food, is a process of deoxydisement, or dehydrating it, in order that it may enter the blood with an increased affinity for oxygen; and this is agreeable to Dr. Prout's statement, that digestion is a process in which the aliments are *raised*; meaning by that, that water

is withdrawn, or dehydrated during such process, from bread or sugar, leaving them in a state more carbonacious. The motion of the arm is not *affected*, as erroneously *printed* in my former letter, but *effected* by the electro-momentum generated in breathing; and as great curiosity has been excited amongst many of Dr. Keenan's hearers on the subject, I beg you will have the goodness to insert this explanation.

But I hope the Doctor will be induced to develop his new views in your valuable journal, independently of his lectures.

Yours, obediently,
M. TENNANT.

2, *Warwick Street, Regent Street.*

SOME NOTES UPON THE HEREDITARY TENDENCY TO MENTAL DISEASE.

BY W. A. F. BROWNE, M.D.

Superintendent of the Chrichton Institution for the Insane.

(Continued from page 96.)

How far the monomania of inebriety is itself a disease, and may be more the development, the consummation, than the commencement, of a hereditary tendency to derangement, this is not the place to point out; but there is every reason to believe that it not only acts upon, and renders more deleterious whatever latent taint may exist, but vitiates or impairs the sources of health for several generations. That the effects of drunkenness are highly inimical to a permanent healthy state of the brain is often proved at a great distance of time from the course of intemperance, and long after the adoption of regular habits. Cases of this kind are highly useful in illustrating the matter under discussion. An individual constitutionally healthy, and, so far as is known, free from predisposition, became insane after long indulgence in intoxicating liquors. He recovered under treatment, and lived for many years exempt from disease, and in a regular abstemious manner; but a change of residence appeared to act injuriously by developing the tendency created by his own irregularities, as he again became deranged, and committed suicide by drowning.

Some time since, I was called upon to treat a remarkably fine boy about sixteen years old, among whose relations no case of derangement could be pointed out, and for whose sudden malady no cause could be assigned except puberty and a single glass of spirits. His father, however, had been a confirmed drunkard, was subject to the delirium and depression following inebriety, and died of delirium tremens. The boy recovered. His case presented many points of interest. His head increased rapidly, and the two hemispheres were of unequal size. The disease was intermittent; the patient passing a week in a furious incoherent madness, and the succeeding week in perfect tranquillity and consciousness. These states were separated or connected by a short and profound sleep or lethargy, differing altogether from the patient's ordinary sleep, and recognised by him as the culminating point of his disorder. At present I have two patients who appear to inherit a tendency to unhealthy action of the brain from mothers addicted to drinking; and another, an idiot, whose father was a drunkard.

There exists in many families a tendency to premature decay of the mental powers. This, in many cases, seems to depend upon a hereditary vitiated condition of the brain. Such decay often happens when youth and manhood have been devoted to animal enjoyment, and when the head is small; but it does occur where neither the pleasures of the table, nor the excitement of the turf, or chase, or billiard-table, have been indulged in—where no blame is attachable to the individual- when, in fact, the career has been distinguished by brilliant talents and by great mental acquirements and achievements. Dr. Holland seems to entertain a similar opinion: he says, "Hereditary malady or incidental disorders often bring on premature decay in *one* organ, while others are comparatively untouched by time."* Forgetfulness of words, generally of proper names of persons and places, and the contemporaneous forgetfulness of recent, and the vivid reminiscence of remote events, are likewise observed to take place much earlier in some families than in others, and to be inexplicable by the disease or debility of the general system. Examples of extreme longevity occur, in which the intelligence remains unaffected by years, flourishing, and fertile, and strong. The acuteness of Parr shone forth immediately before death, and the genius of Fontenelle remained unclouded at the very close of his long life. In whole families, likewise, there occurs no dotage previous to death. In others, the intelligence wears out sooner, resists less successfully the influence of care, and labour, and sorrow; and imbecility appears before the emergies of manhood are exhausted, or the purposes of our being fulfilled. Nor does this imbecility consist in that loss of memory and impairment of perception, or that gradual extinction of the noblest attributes of our spiritual nature, which accompany age, which are symptoms of senile dementia, which depend upon the hardening of the substance of the brain, and which are but the forerunners of dissolution. The decay to which allusion is made, appeared under various forms, but all of these bearing the true characteristics of insanity. These may be perversion of the sentiments with or without delusion, depraved appetites, furious mania, or fatuity. A remarkable example of this has fallen under my own observation. A member of a learned profession, of high birth and very moderate abilities, their mediocrity having been screened by fortunate circumstances, gave indications of mental senility between fifty and sixty. There was no obvious cause, moral or physical, for this sudden and premature decay. It was not accompanied by bodily infirmity, nor by the external signs of old age. The gentleman continued to discharge important functions, aided

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* Medical Notes, p. 283.

by the suggestions of friends, and guided by the rigid routine by which he had been moulded and moved all his lifetime, but with the feebleness, and childishness, and caprice of dotage. His brother became epileptic at fifty, and passed the succeeding eleven years of his life in imbecility. His son, at precisely the same period of life, and surrounded by circumstances which promised to foster and preserve the most limited and weakest intelligence, sank into lethargy, and perverted tastes and appetites; the ruin being in his case greater and more irretrievable.

Careful examination has convinced me that there is in some races a special hereditary tendency to mental disease, which becomes developed in various forms and modifications of lunacy, but always in *lunacy;* and that there is in other races a general hereditary tendency to nervous disease, but which may appear as apoplexy, epilepsy, eccentricity, or madness, the particular form being determined by the circumstances or habits of each individual. There may be observed in a single family, the immediate progenitor of which was insane or paralytic, one member affected in early life with convulsions or hysteria, another at mature age giving indications of extravagance and folly or oddity, and a third living longer exempt from ailment, but at length dying suddenly apoplectic; a train of misfortunes which cannot fail to suggest a proclivity to a whole class of diseases. Such affections of the nervous system as apoplexy and epilepsy implicating alteration of structure, are known to be transmissible, and it is probable with greater regularity and intensity than insanity; but the tendency of which we have spoken includes not only these, but all or many others of the same description.

How very slight are the deviations from healthy structure and function which are perpetuated in families, may be gathered from the cases of inability to perceive colour or certain colours. Dr. Holland mentions one family in which the father and two children were unable to distinguish a red colour, and another, in which three brothers and two or three children were unable to distinguish between blue and pink.* In a family called Le Comptes, the history of which is given by Dr. Adams, blindness has come on at the age of eighteen in three generations.† That numbers of the same family are born deaf or dumb, is deducible from the records of many public institutions, and several facts appear to prove that such defects are transmissable. I have observed, in the same family, lunatics, and individuals labouring under blindness from affection of the optic nerve. In another family I have met with mute idiots and lunatics; and in a third, three blind and one eccentric person ultimately committing suicide, in the first generation,—one mad in the second,—and one labouring under hydrocephalus and infantile convulsions, followed by great precocity, in the third.

(To be Continued.)

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* Medical Notes.
† Adams on Hereditary Peculiarities.

ANSWERS TO CORRESPONDENTS.

R. D.—We do think our correspondent would be greatly *aided* by the advice of a judicious phrenologist. But in the present imperfect state of Phrenology, we would not have him rely *blindly* on any such advice. The inclinations of the boy, together with the disposition and talents he has hitherto manifested, should also be taken into consideration. Our engagements do not permit us to make such examinations ourselves, but there are three professional Phrenologists in London who can be consulted, viz., Mr. Donovan, and Mr. Rumball, in King William-street, Strand, and Mr. Deville, in the Strand. An advertisement from Mr. Donovan may be seen in the last number but one of this Journal. Mr. Deville's terms are half-a-guinea, and Mr. Rumball's, we believe, the same.

N. H. (*Sunderland.*)—We never pass an opinion upon a mere sketch of the organs with the developments marked. How are we to know that the marking is accurate? The sketch in question does not reveal to us the exact shape and cast of the head, and if it did, it would only furnish one set of indications. We require to know the quality of the brain, the thickness of the skull, &c. We can almost always satisfy ourselves on these points when we see the individual, but not otherwise. The term "a sanguine nervous temperament," tells us very little. We could enumerate fifty different casts of temperament that might be termed sanguine nervous. We require to know the colour, thickness, quality, &c. of the hair, the characteristics of the skin, eyes, muscular and sanguineous systems, general proportions of the frame, &c. All these are indicative of important mental peculiarities. We should be glad to remove any shade of doubt that may yet remain on the mind of our correspondent, but from the sketch sent, we should not be authorised in deducing any thing more than a few vague generalities.

R. Jones.—We are under the necessity of deferring for another week Mr. J.'s communication. We wish to give, together with his letter, the explanations he asks for, and our space this week does not permit us to do so. His last letter has been received.

E. Jones.—Has been received.

Mr. Preston.—Will appear in our next.

We have to acknowledge the receipt of the first *Monthly Circular of the Authors' Institute.* We shall speak of it hereafter. We can only say now, that we heartily wish the project every success. If its proposals can be realized, it must be productive of immense good.

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A COMPLETE SYSTEM OF PHRENOLOGY.

IDEALITY—(*Continued*).

"IT has become, of late years, the fashion to extol potatoes, as it has been to admire the writings of Milton and Shakspeare. God, Almighty, and All-foreseeing, first permitting his chief angel to be disposed to rebel against him—his permitting him to enlist whole squadrons of angels under his banners—his permitting the devils to bring cannon into this battle in the clouds—his permitting one devil or angel, I forget which, to be split down the middle, from crown to crutch, as we split a pig—his permitting the two halves, intestines and all, to go slap together again, and become a perfect body—his then permitting all the devil host to be tumbled headlong into a place called Hell, of the local situation of which no man can have an idea—his causing gates (iron gates, too,) to be erected to keep the devil in—his permitting him, nevertheless, to get out, and to come and destroy the peace and happiness of his new creation—his permitting his Son to take a pair of compasses out of a drawer to trace the form of the earth—all this, and, indeed, the whole of Milton's poems is such barbarous trash, so outrageously offensive to reason and common sense, that one is naturally led to wonder how it can have been tolerated by a people among whom astronomy, navigation, and chemistry, are understood. But it is the fashion to turn up the eyes when "Paradise Lost" is mentioned; and if you fail herein, you want taste; you want judgment, even if you do not admire this absurd and ridiculous stuff, when if one of your relations were to write a letter in the same strain, you would send him to a madhouse and take his estate."

ANIMALS.—There are no facts to warrant a supposition that there exists even a sketch of this faculty or organ in any animal lower in the scale than human beings, and indeed in many of the tribes of savages it appears as deficient as in the pig, or cow; the Caribs, New Hollanders, &c., are instances of the almost total absence of this power even in human beings.

NATURAL LANGUAGE.—The expression of the face is most indicative of the activity of this faculty. It is not possible to give a detailed description, it must be observed, and those who are sufficiently endowed with the feeling will readily recognise its manifestations in the general elevated and sparkling tones of the voice, the expression of the eye and mouth. The eyes turned upwards and outwards, the hand elevated and extended, and the whole contour of countenance and demeanour bespeaking fervour, delight, and enthusiasm. The whole is comprised in Shakspeare's description:—

"The Poet's eye in a fine phrenzy rolling,
Doth glance from heaven to earth, from earth to heaven,
And as imagination bodies forth,
The forms of things unknown, the poet's pen
Turns them to shapes, and gives to airy nothing
A local habitation and a name."

IMITATION.

Dr. Gall's attention was first called to this particular organ by a friend, who informed him that his head had something very particular about its shape, and at the same time directed his hand to the superior and anterior region.

On each side of Benevolence the Doctor found a decided prominence in the form of a segment of a circle, behind the protuberance there was a depression. Gall had not previously remarked this conformation. This man has a particular talent for imitation. He immediately went to the institution for the deaf and dumb to examine the head of one of the inmates, a boy named Casteigner, who had been in the institution six weeks, but from his first entrance had excited attention by his amazing talent for mimicry. On the *mardi gras* of the carnival, when a play was acted at the institution by the pupils, he had imitated so perfectly the gait and gestures of the director, physician, and surgeon of the establishment, and especially of some women, that it was impossible to mistake them. The boy was quite uneducated. Dr. Gall states that he was surprised to find the part of the head in question developed as remarkably as in the case of his friend, whom he had just left. After a great many observations in private families, public institutions, and upon the heads, busts, and casts of artists and public characters possessing great imitative powers, and he invariably found a large development of this part of the head in those who were most distinguished for this kind of talent. Garrick, who had this organ remarkably developed, upon one occasion, after having been at the French court only for a few minutes in presence of the King, the Duke d'Aumone, Duke d'Orleans, Richelieu, Brissai, Prince Loubise, and several other gentleman, he had the peculiar manner of each so fixed on his memory, that after supping with his friends, he placed them in two files and retired from the room, and instantly returning, his friends exclaimed, "Ah, behold the King, Louis the XV., to the life." He imitated all the personages so that they were immediately recognised, and not only did he copy their gait and gesture, but he as correctly pourtrayed the expression of their countenance.

Situation of the Organ.—On each side of Benevolence, at the superior and anterior portion of the head, above Wonder: when large, it gives a squareness of appearance to the top of the forehead laterally as far as the centre of the eyebrow, it will very easily be distinguished, after observing a few heads in which it is largely developed, and contrasting the appearance and shape of this region with those in whom there is a deficiency of the organ.

Primitive Function.—Phrenologists are not quite agreed in their analysis of this faculty, some maintain the primitive function is to imitate what has been seen. Others, that it imparts the power of expressing the thoughts and ideas by gesture, or what we usuall. denominate pantomime. Both these views are founded on observation, it is very probable that there may exist two organs in this region, the one, that of imitation, the other, for expressing by gestures; the question is one that requires consideration and may perhaps be solved by the aid of mesmerism. The imitative faculty is almost always very marked in children, and this region of the head is fully developed relative to the other portions, but they imitate most what is conformable to the other portions of their organization. They will copy the tones of voice, the actions, and physiognomical expressions even of those with whom they live. This is why an accurate observer may tell at the first glance how a child has been trained, with what class of persons it has been accustomed to associate. The primitive function is to imitate, and in fact gives the power of adapting the external indications of character to surrounding objects.

Auxiliaries.—All the intellectual faculties, particularly the perceptives, which acquire by exact observation the stores to be brought out and displayed by Imitation, Ideality, Wonder, and Wit or Gaiety, all excite this organ. As well as those feelings and the temperaments which produce energetic and vivacious action. This organ will of course be called into activity by many of the feelings, and in this view they may be regarded as auxiliary faculties, for example—Vindictiveness resulting from the action of Destructiveness, will often induce mimicry to annoy or ridicule. Benevolence, the exact opposite of Destructiveness, will likewise call this power into play to imitate the actions resulting from the benevolence of others.

Opponent Faculties.—The reflecting powers restrain the use of this faculty rather than oppose its legitimate manifestations. Secretiveness and Cautiousness are the especial faculties the functions of which are to hold back all those powers liable to run into excess from their vivacity, and few are more so than the faculty under consideration. Benevolence also opposes this faculty, giving respect and tenderness for the feelings of others.

Manifestations,—Without entering into an account of the various theories in connection with this organ, some of which in its analysis would regard it as the source of sympathy, so far as it tends to produce like action to those observed in others, it is sympathetic, but materially only. There certainly exists no proportion between the size and power of this particular faculty and the general sympathy of the individual for others. That, we consider, must depend upon the whole organization, and is relative to particular objects and actions according therewith. The manifestations of Imitation may be observed in nearly all public actors. Their power of mimicry is in proportion to the development of this organ in combination with the observing powers, and Secretiveness to restrain what might interfere with the personification, such as the natural feelings, &c. According as Ideality and the dignative faculties are large or small, will the individual have more or less sympathy with elevated characters, and thus will their course be marked out for them as high tragedians, imitating the tones and gestures of lords, kings, and conquerors—or the powers will act more independently and be limited to the imitation of each other's peculiarities, or the manners and habits of ordinary or even low life.

(*To be continued.*)

AN ESSAY ON THE BRAIN.

By Mr. F. S. Merryweather.

(Concluded from page 117.)

MAMMALIA.

In ascending to the mammalia, we arrive at a class whose cerebral organization far exceeds in structure and complication that of the preceding. The hemispheres of the cerebrum are larger, broader, and (with a few exceptions) convoluted. It will be found that the shape of the head differs not only in the various kinds of animals, but also in those of the same species. Where this difference occurs, we may trace a corresponding difference in the manifestations of their intellectual powers. That form, which is so essentially necessary to the development of particular qualities of the mind, will be found in many cases remarkably conspicuous, and by a careful phrenological investigation, we can easily mark the gradual increase of mental power, from the lowest quadruped to the *genus homo*, whose encephalic organism seems to possess all the united beauties of the lower animals combined with many additional qualities. The works of man are standing proofs of the mighty power of his brain, by whose magic influence and gigantic schemes barren lands have been converted into fertile plains, and the rude and unmoulded mountain-rocks into noble and stupendous edifices. Some of the brains of the smaller animals are equal to that of man when weighed in proportion to the body. That of the mouse, for instance, is as 1 to 43, showing a large brain considering its size. This at first seems rather surprising; but if we consider its anatomical structure, we shall see that it is quite in accordance with a law of our organism. The brain of the mouse is principally composed of the medullary matter—an element whose function is to impart a nervous energy to the physical parts, but having no power of producing mental manifestation, which is the function of the cortical substance, an element found in a very small proportion in the brain of the mouse. It matters not how small the beings of the animated world, the complication of their structure is not less intricate on that account; so that a small animal requires a *proportionately* larger quantity of the medullary matter. The frontal elevation of the skull of the mouse and its perceptions are also well known, in avoiding snares, &c. The brain of the horse is large, viewed merely with regard to its absolute volume; but its proportion to the body is only as 1 to 400. It has been made subservient to the uses and conveniences of the human race: "This noble associate of man, in the chace, in war, and in the works of agriculture, the arts and commerce, is the most important and carefully attended of all the animals he has subdued."* The cat is greatly inferior to the canine race; it is not so easily subdued, and does not evince the affection and adhesiveness of the dog; it is naturally savage and malicious, and its brain is large behind the ears, the seat of the combative organs; it has large alimentiveness, and a considerable development of the organ of amativeness, exceeding, in the comparative size of the cerebellum, not only the dog but man—in man it weighs in proportion to the cerebrum 1 to 9, in the dog 1 to 8, but in the cat it is as 1 to 6. The dog is far superior in point of intelligence: this is obviously indicated by the general roundness of the cranium in the occipital regions. Although the dog is an almost universal associate of man, he presents numerous degrees of civilization according to the society in which he has been trained. In the wild state the dog is voracious, savage, and fierce, but education and association with mankind has done much to develope many superior faculties. "He is the most complete, singular, and useful conquest ever made by man; the whole species has become his property, each individual is devoted to his particular master, assumes his manners, knows and defends his possessions, and remains his true and faithful friend till death, and all this neither from constraint nor want, but solely from the purest gratitude and the truest friendship."* This is exactly in accordance with their cerebral organization; it is pleasing to find the truth of Phrenology inculcated in the writings of such experienced and celebrated naturalists. "All canines, excepting in size, are surprisingly similar in their whole anatomy, even minor peculiarities are rare and evanescent. Recourse has, therefore, been had to the comparison of the *bones of the head*, where the seat of the senses are most likely to give evidences of different appetites, wants, and powers."† The brain of the elephant is not only the largest, but presents the finest cranial development of any of the quadruped tribe; so also we find it evinces the greatest amount of intelligence when placed under favorable circumstances. Cuvier, however, says, that "After studying the habits of these animals for a long time, we have not found them to surpass the dog and some of the other carnivorous animals in intelligence. From the quadruped we ascend to the quadrumanous tribe; but space will not allow of more than a curtailed notice of two species: the ourang-outang and the chimpanzee. Cuvier says, in his "Regne Animal," "Of all animals this ourang is considered as approaching most nearly to man in the form of his head, height of forehead, and volume of brain." This opinion I think exceedingly doubtful. It is true those that have been brought over into this country are apparently pre-eminent in cerebral organization; but, it must not be forgotten, that all such specimens were young individuals, none having survived many years after their arrival in this country. In weighing, therefore, the brain, this circumstance should be borne in mind, for it is evident the body had not attained

* Cuvier (Murtrie Ed.) p. 102.

* Cuvier Régne Animal.

† Naturalists' Library, vol. ix. p. 112.

its full size. It would be unphilosophical to decide on such doubtful authority, that its brain in point of weight was superior to that of the chimpanzee. The only adult skeleton that I have had an opportunity of seeing is in the museum of the College of Surgeons, and from a personal examination I am inclined to consider it very inferior. Cuvier admits that "this intelligence does not appear to be so great as reported, not much surpassing that of the dog." The supercilliary ridge, or bony arch above the eyes, is exceedingly thick and prominent, and the whole skull presents in consequence of its retreating frontal bone, a very indifferent form, the anterior region being considerably smaller than that of the chimpanzee, which in the comparative size of the parts of his brain and the number of its convolutions, approximates nearest to the shape of the human species. Its cerebral hemispheres are so well developed, as to cover the cerebellum; they are, however, inferior to those of man in the width of their anterior lobes. The intelligence of the chimpanzee surpasses all the lower animals, and is evidently next to man in the scale of animal sagacity. "It inhabits Guinea and Congo, lives in troops, constructs huts of leaves and sticks, arms itself with clubs and stones, and thus repulses men and elephants. Naturalists have generally confounded it with the ourang-outang. When domesticated, he soon learns to walk, sit, and eat like a man."* Having thus given a few cases to illustrate comparative Phrenology, we now arrive at the *genus homo.* Blumenbach distinguishes five orders of mankind—viz., the Caucasian, Mongolian, Malay, American, and Ethiopian. Of these the Caucasian, or white, is superior both physically and intellectually; while the Ethiopian, or negro tribes, are sunk lowest among the species of mankind. This is quite in accordance, not only with their mental manifestations, but also with their cerebral and cranial developments. They are, as a body, ignorant and lazy to excess, nor do they appear to possess the spirit to emancipate themselves from slavery, or to improve their social and moral conditions. The Caucasian seems to inherit all those qualities necessary to constitute a good intellectual brain—viz. substance, form, size, and weight; the brain is large, completely filling the "cavum cranii," and indicating by its impressions on the bones the localities of the organs of the mind. It has been shown that the nearest approach to the organization of the human brain was that of the ape; but even this is far from being on an equality. Soammerring has pointed out no less than fifteen anatomical differences between the brains of man and the monkey. The families of the Caucasian race have manifested as their most striking characteristics, high and lofty sentiments, and a brave and undaunted spirit; but the superiority of mankind generally over the lower animals is obvious. "No quadruped approaches him in the magnitude and convolutions of the hemispheres of the brain: that is, in the part of this organ which is the principal instrument of the intellectual operations. The posterior portion of the same organ extends backwards, so as to form a second covering to the cerebellum. The very *form of his cranium* announces this magnitude of the brain, while the smallness of his face shews how slightly that portion of the nervous system which influences the external senses preponderates in him."* The weight of the brain varies from 3lbs. 2oz. to 4lbs. 6oz.† Tiedmann says, "The female brain is lighter than that of the male. It varies between 2lbs. 8oz. and 3lbs. 11oz. I never found a female brain that weighed 4lbs. The female brain weighs on an average from four to eight ounces less than that of the male, and this difference is always perceptible in the new-born child."‡ Thus it would seem, from progressively viewing the structure of the brains of various animals, that in proportion as the mental faculties are superadded, additional parts and a superior formation of the brain is clearly perceptible. Although the natural history and physiological distinctions of the various tribes of the human race is a subject pregnant with interest, and involving questions of the greatest importance to science and mankind, yet it is too long a subject to enter into at present, and would far exceed the bounds of this article.

[We think it necessary to remark here that we by no means agree with the opinions expressed by Mr. Merryweather on the functions of the two substances of the brain. We see, at present, no particular objection to the supposition of the cortical substance being, in some way or other, a source or magazine of nervous energy, but the opinion as stated by Mr. Merryweather is wholly subversive of Phrenology. We had intended to have spoken upon this subject long since, but our attention has been diverted from it. We shall soon, however, return to it.

We wish also to correct an error into which several of our correspondents appear to have fallen. They speak of these views as if they were original on the part of Mr. Merryweather. This is altogether a mistake; they have been long since broached in different quarters. Several notices of them have also appeared in the "Quarterly Phrenological Journal," viz.—in Numbers 13, 14, and 24, of the new series. The last of these, published last October, contains an extract from Dr. Brigham's "Inquiry concerning the Diseases and Functions of the Brain, the Spinal Cord, and the Nerves," which embodies the whole doctrine as stated by Mr. Merryweather. It is well to observe also, that these views have been advanced by some writers as entirely destructive of Phrenology.] —Ed.

* Cuvier Régne Animal.

* Cuvier. † Tiedmann.
‡ Phil. Trans. 1836, part ii.

THE PEOPLE'S PHRENOLOGICAL JOURNAL.

Our readers will find, in our present number, two letters on the subject of the frequent coexistence of small foreheads with great intellectual power. It appears that both of our correspondents have met with many facts harmonizing with those to which we have alluded, and that both have felt the necessity of seeking for some other explanation of the phenomena than that furnished by the recognised system of Phrenology. Their explanations we regard as inaccurate, though both contain a portion of truth and considerable plausibility. That of Mr. Jones is given merely as a surmise, and he has very clearly perceived, and very candidly stated the alarming consequences to which its admission would lead. As we are called upon for our explanation, we shall give it with pleasure, as far as the limits of this article will permit. Should there be any deficiency, we shall return to the subject another time.

In the first place, we have never had the remotest idea of contending against the principle that size *ceteris paribus* is the measure of power. We have merely contended for the importance of many of the other conditions which modify the influence of size, some of which conditions have hitherto played a far too subordinate part in the calculations of phrenologists. And as a proof that such is the case, we have frequently announced the naked and glaring facts of great talent existing in conjunction with moderate or small foreheads, which facts would be extremely numerous, were it not for the enormous and impudent fallacies of the generality of sculptors and portrait painters. It is in part, but not altogether upon these conditions that we make the above phenomena depend. We now proceed with our explanation.

Whenever decided talent is found conjoined with a small forehead—small, relatively to the other regions of the head, and to the body generally, we believe there will also *invariably* be found—1st. A large relative development of the whole concentrative region—of the whole region in fact between Philoprogenitiveness and Firmness; and 2nd. A vivid and energetic temperament, usually accompanied by a profusion of dark brown, or black hair, sometimes very fine, sometimes strong, but never coarse. We think it may be laid down as an *invariable* rule that a small forehead* is always accompanied by large concentrativeness, and very thick hair. In the colour and quality of the hair there may be every gradation. On the other hand, a large forehead is usually, and a very large forehead almost invariably accompanied by moderate, or small concentrativeness.† In the more intellectual races of this cast, the hair is usually fine and thin, and mostly brown; in the others, mostly black, and often strong and thick. These must strike phrenologists as extraordinary concurrences of facts, for their system neither affords an explanation of them, nor leads to the anticipation of anything like them. They are easily accounted for upon the theory of distinct races of which we have on different occasions given some partial explanations. These facts show us that nature has often compensated in a variety of ways for any deficiency there may be in size of forehead, or rather that a development of forehead, which would be very inferior if considered isolatedly, may be very much the reverse, when accompanied by all the other essentials of talent.

Where then there is a forehead relatively small, accompanied by much talent, there is, in the first place, a very intellectual constitution or temperament.‡ In the second place, there is

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* We speak, throughout, of a forehead small relatively to the other regions of the head.

† Something like an exception to this rule occurs in what we have elsewhere termed the Calmuc or Chinese type of head, in which the forehead, though relatively broad and high, is very shallow. The exception, however, is apparent only. These foreheads, compared with the general organization of the individuals, are by no means small.

‡ We have no hesitation whatever in maintaining that the tendency to intellectual pursuits and habits is by no means proportionate to the development of the intellectual organs, but that it is chiefly—essentially in fact, dependent upon temperament, upon the ultimate structure of the nervous system. Even the proportions of the organs of feeling have more to do with it than those of the organs of the forehead. Both these classes, however, determine the direction which intellect will take, and modify its power. In other words, it appears that some nervous textures are more adapted for intellectuality and refinement, delicacy and elevation of feeling, than others; these textures being supplied, every thing will then depend upon the size and proportions of the organs, cerebral and otherwise; but the finest developments of these organs would never produce high results when their substance was of inferior quality. These remarks account for the

always great comparitive energy, and vivacity, and the intellectual organs, though small, are capable of enduring frequent and long-continued exercise.* These mental peculiarities are indicated by external appearances; by the brightness, vivacity, fire, &c. of the eye, the rapidity and energy of the general movements, the fineness of the skin, the colour, quantity, and texture of the hair, the hardness of the muscles, the general predominance of the nervous system, &c. &c. In the third place, there is a favourable development of the organs of feeling, the most important of which, for this purpose, are the concentrative organs. Their action may be thus explained. A person, in whom these organs are large, will be affected in the following manner. It will be painful for him to part from agreeable objects, or to divert his mind from agreeable trains of thought. The tendency therefore is to keep such present to the mind, until the attention be fatigued for the time, or until some other still more agreeable objects, or ideas are presented. In either case, however, the mind returns again and again to the former, they assume a place in the affections, and become more or less favourites, and continue such, unless special interferences arise. This tendency to cling to objects of interest, this pain of parting proceeds from one of the concentrative organs. When the other is large, the individual feels an instinctive interest in objects from mere association. Whatever is naturally connected with an interesting object becomes itself interesting in proportion to the closeness of its connection with that object. Thus the friend of an absent friend becomes at once an object of interest, unless his peculiarities are especially repulsive. Hence, if an interest be taken in a great man, in Napoleon for instance, it is immediately extended to his family, to his generals, to his exploits, more or less to everything connected with him. Hence probably the instinct of relationship in blood, the love of country, &c. &c. Hence, in in a great measure, the fondness for relicts, mementos, &c. It is thus also with our trains of thought. Whatever subject or idea is connected with one previously interesting, becomes itself relatively interesting. Thus, if a new study, that of a language for instance, be taken up with pleasure, everything connected with that language has a tendency to become an object not merely of attention, but of interest, of affection even, as far as that term is applicable to such things.

Now where these two organs are small, a contrary disposition will, in a great measure, be manifested. The individual will pass from agreeable objects or ideas, with little or no inconvenience. The pain of separation will usually be feeble, always very transient. He can attend with ease to a multitude of occupations wholly unconnected, passing rapidly from one to the other, and continuing this course from day to day, or year to year. In the same manner, he may be much interested in a certain object or pursuit, and feel little or no interest in another intimately connected with it, or, if he does, it is for other reasons than mere association.

It is easy now to perceive how powerfully the state of these organs, must modify the results produced by the intellectual faculties. Memory bears a very direct relation to the attention and interest that objects excite, therefore, where these organs are large, the memory is relatively greater than where they are small. To such a degree is this the case, that a person with a forehead of very moderate size, may have a vastly superior memory to one with a very large forehead. In reasoning, again, the superiority is much more

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studious and intellectual tendencies, &c., of many persons with small foreheads, contrary to what would be expected according to the present views of phrenologists.

* Phrenologists seem to have regarded small organs as in some degree imperfectly developed, and consequently giving, not merely feeble, but imperfect manifestations. These opinions have not, perhaps, been very definitely stated by them, but some notion of this kind has certainly obtained amongst them. The opinion, however, is very erroneous. An organ must be developed in all its parts before it can manifest any function at all. The small organs in an adult head are as perfectly developed in every respect as the large ones, they are merely a size or two smaller. Were the organization in any point incomplete, idiocy would be the consequence. Thus the stomach, or the lungs, or the heart, may be relatively small, and yet perform their functions perfectly. Napoleon had an unusually small heart, and the lungs in one of our life-guardsmen are of very trifling development compared to what they are in the native inhabitants of the Peruvian Andes; and yet these organs are respectively perfect in their kind. So is it with those of the brain. To talk, therefore, of a small organ of conscientiousness as being incapable of giving a clear and vivid manifestation of the sentiment of justice, is evidently erroneous. There are many important considerations involved in this opinion.

marked. The person with large Concentrativeness, seizes with avidity the point in dispute, and keeps it permanently before the mind. Other thoughts may arise, but they can only momentarily distract the attention. In addition, everything connected with this point, within the knowledge of the individual, becomes at once interesting, and has a tendency to present itself to the mind, and maintain its position in spite of distraction, on the same principle that the leading idea maintains its place. Thus by the mysterious laws of Memory and Association, the individual is, in an instant, with electric rapidity, put in possession of the whole of his knowledge on the point in question, and he is able to view the subject, in many, or perhaps all of its more important bearings at a glance, so that a person thus organised, is often more brilliant, concentrated, and profound in an extemporaneous effort, than when writing leisurely in his closet, as in this case, he loses the advantage of high excitement.

On the other hand, the person with small concentrativeness is, relatively speaking, at the mercy of chances. His attention is perpetually wandering from the point in discussion. His ideas come up isolatedly, and those which are most necessary may not occur to him for hours or even days after they may be wanted. Besides, his knowledge is usually incomplete. There are many important bearings of the question that he may never have cared about, and of which, therefore, he knows little or nothing. Under all circumstances, his opinions are likely to be one-sided, and his conclusions without depth. And this is what we perpetually find to be the case with persons of large foreheads and intellectual temperaments and pursuits, but who are deficient in the concentrative organs.

Finally, it has been the plan of nature to make some races of men concentrated and *special* in all their habits and pursuits. Others she has fitted for attending to a multiplicity of objects. For the latter a much larger forehead is required to produce a given amount of attention, memory, and judgment, than for the former, in whose case, at we have seen, the intellectual organs are so powerfully aided by the feelings. Besides, many of these races are of a gentle, calm, unenthusiastic character. These, therefore, require a still larger forehead, in order to approximate in talent to their relative concentrated races. Thus, concentration, force, and vividness of temperament, are more than an equivalent for a large intellectual organization.

We must, on this occasion, content ourselves with this rapid sketch of our ideas. It is too imperfect to allow us to hope that it can be more than partially satisfactory. We fancy, however, that we possess the means of removing all doubts on the essentials of this question, and we shall, therefore, not lose sight of it.

REVIEW.

The Phreno-Magnet for December.

The Phreno-Magnet for the present month has been late in making its appearance, which circumstance must be our excuse for not having before this noticed so decided a favourite of ours. The present number comes to us with more than its customary attractions. Its grand feature, no doubt, is the portrait of the Editor, with which it is adorned, but of this, unfortunately, we cannot at the moment say anything, as we have not yet seen it. The work has reached us *minus* the portrait, for it appears that one of our mischievous colleagues, whether from anxiety to monopolize such a treasure, or for some other important reason, tore out this embellishment before sending us the work, and has thus left us, for the present, dying with curiosity. We must, therefore, confine ourselves to the matter of the work.

It is with sorrow we commence our task on the present occasion, as we have to speak of the concluding number of the *Phreno-Magnet, and Mirror of Nature.* The work ends with the part before us; and though we are promised that its place shall be supplied by a volume of superior attractions once a year, at Christmas, or thereabouts, still that is a long time to look forward to, and we would, besides, rather have our pleasure more divided. A whole volume, at once, of such surprising and amusing matter as we have already had, would be more than our nerves could stand. What with "*Punch,*" and the other comicalities of the season, we do not know what will become of us, if Mr. Hall is not a little more merciful than he has sometimes been.

The peculiarities of Mr. Hall are chiefly displayed in what he calls his "Retrospects." In the other parts of his work, to he has an eye business, but when once he takes up his pen editorially, and writes "Retrospect" at the head of his page, he is another being. This word has the same effect upon him that ascending the sacred tripod had upon the Delphic priestess. He is instantly elevated above all sublunary considerations; his eye takes in the past, the present, and the future; and with lofty mien and commanding voice, he pours forth the stream of inspiration, proclaiming the onward march of Mesmeric truth, and crushing, with the thunderbolts of mind, all that presume to check its course. Whether Mr. Hall writes thus merely to astonish some of the natives in the provinces, who are very apt to mistake bombast for sublimity, or

whether he really intends all this pompossity for sentiment, fine writing, philosophy, and so forth, we cannot say, but in either case it is very amusing. But we must hasten to lay before our readers the future plan of the *Phreno-Magnet*. Its advantages over the present work are thus set forth. It will afford—

"1st. An opportunity of giving, in some eoneise and systematie form, a more complete digest of his own experienee than he eonld, in a work divided into so many and short periodical seetions. 2nd. A more ample and satisfaetory medinm for those eorrespondents who may wish to lay before the world the maturer fruits of their investigations, so that the merits of their several eonclusions may be more fairly compared and appreciated. And 3rd. The means of so collecting and arranging the matter, as not only to render the work valuable as a journal of new discoveries, but as a standard of mesmeric seienee in all its departments.

"It is, therefore, proposed that all artieles for future publieation be forwarded as they may be prepared to the publishers, so as to reach the editor before the middle of July—the volume to appear at the close of autumn. To render the work still more interesting, it is intended to embraee earefully prepared memoirs of the most distinguished mesmerists of past and present times, and to have it embellished with portraits and such other appropriate pietorial illustrations, as will render it at onee one of the most elegant and engaging, yet at the same time instruetive and useful, of seientifie annuals."

This is surely a most attractive bill of fare; and all to come at Christmas, with the roast-beef, and mince-pies, and other good things of the season! If we Mesmerists have not a merry Christmas next year it will not be Mr. Hall's fault. But, alas! that it should be our fate to dim with our forebodings this vision of happiness. And yet it is better to be prepared for misfortune than to have its whole force come upon us suddenly. To us, then, it appears clear that Phreno-mesmerism, at least the Phreno-mesmerism of Mr. Hall will, in all human likelihood, be dead and buried before next Christmas, and how its place is to be supplied in the forthcoming "most elegant and engaging annual," we know not. It is really melancholy to think that this wondrous child Phreno-mesmerism, whose birth awakened such boundless hopes, should be doomed to so brief an existence. But it has been so ruthlessly set upon by its numerous foes, that, although it has already more heads than Briareus had arms, and though new ones are continually starting up, yet it has been too vitally injured ever to recover. Not all the fostering care of the Genii (*vulgo*, geniuses) who have created it, can much longer protract its fluttering existence. Nay every effort they make for its preservation only accelerates its fate. Like other fond but foolish parents, they are actually killing it, in their ceaseless endeavours to save it. But were it even as yet healthy and vigorous, nothing could save it from the storm that is gathering from all sides against it. Its partisans are dropping off; many who were at first frightened by it have recovered their presence of mind, and perceive its true character; while others, who looked on with carelessness or contempt, never expecting that such a monstrocity could possibly live for any time, are preparing seriously to attack it, since it has displayed more vitality than they anticipated. But we are becoming altogether too sublime and poetical. Our readers, we trust, will excuse us, for we find it impossible to take up the *Phreno-Magnet* without partaking of its inspiration. We will, however, endeavour to keep ourselves within due bounds during the remainder of our remarks. Seriously then, we think we perceive in the *Phreno-Magnet* itself evidence of the downfall of Mr. Hall's Phreno-mesmerism. Latterly, his triumphantproclamations have had reference to mesmerism rather than to Phrenomesmerism. His Phreno-mesmeric experiments have appeared as incidental rather than principal features in his labours. Since the first grand coinage of organs, there has been no new issue by him. Whatever has been added, has been added by his followers and imitators. He seems to have been startled by the lengths to which he had gone, and he has since preached moderation and caution. We were promised lists of his organs, charts of their situations, &c. but nothing has yet appeared. This is surprising when we consider the ease and rapidity with which his first discoveries were made, the necessity for further discoveries which his views create, the fact that according to those views the greater part of the brain remains still a *terra incognita*, and the further fact that his means for discovery are now as great, if not much greater, than ever. He thus alludes to the matter in the present number:—

"It may, in eonelusion, be proper to observe, that though the editor has not yet felt justified in publishing a ehart of the more reeently diseovered eerebral organs, he has not been unmindful of such a work. His delay has been oeeasioned, not by anything he has met with to eontrovert his belief in the great amplifieation at first announced—although he has, he trusts, kept his mind perfeetly open to evidenee of every tendeney—but beeause there really are some idiosyncrasies requiring further eonsideration, and some important indieations whieh it will be well to see properly eorroborated before making known. He would, likewise, take this opportunity of requesting those who may not be prepared to embraee his views regarding an amplifieation, to bear in mind that the names of many organs have been only temporily given, as deseriptive rather of their *modes* of manifestation than of their radieal funetions. In registering their operations this for the first time was almost unavoidable; and it is a well-known faet—if sueh be any extenuation—that the venerated Gall did the same, designating Destruetiveness, for instance, as the "organ of Murder," &c. In conneetion with this braneh of the subjeet, there is one passage espeeially he would wish to revise. It is at page 34, commeneing at the 9th line; and he begs the reader will turn to the "Errata" at the end of the index, where a eorreetion of it will be found. On now taking a ealm review of the matter, he is not disinelined to agree with some who have eritieised him a little upon it, that at first, in his eagerness

and earnestness, a few such passages were allowed to go forth too loosely worded; but he trusts that this admission will in some measure, remedy the fault."

In spite of Mr. Hall's efforts at confidence, these remarks wear altogether the air of apology. We are now told that many of the names given to the new organs are merely temporary, "descriptive rather of their *modes* of manifestation than of their radical functions." We do not remember to have heard anything at first about such distinctions. The names, then, indicated exact functions, not "*modes* of manifestation"—an expression, by the bye, which in the sense here used, and in the sense in which it is mostly employed by phrenologists, is absurd and unphrenological. Different modes of manifestation are the result of *complex* mental action. Each organ has but one mode of manifestation. Its manifestation varies in degree only, and in that variation of *quality* resulting from temperament. Mr. Hall talks of radical functions; why has he not made some attempt to shew what are radical functions? We do not recollect meeting with a single line of analysis in the whole of the *Phreno-Magnet;* neither do we think Mr. Hall in the least qualified for anything of the kind; and this makes his bombastic announcements of a host of new organs so supremely ridiculous; as if organs, and more especially faculties, could be discovered without rigorous and profound analysis! Even Gall and Spurzheim, though they discovered many organs, have seldom done more than approximate to their exact functions. But, in these blessed days, any young gentleman who is capable of sending a female to sleep by mesmeric passes, may become at once, *ipso facto*, a mental philosopher, and discover primitive faculties at a rate that would put Gall and Spurzheim to the blush, to say nothing of the metaphysicians.

The correction alluded to in the passage just quoted is curious, it runs as follows: "For—'It was little more than a fortnight ago that we discovered a most important class of mechanical faculties,' &c., read '*Within the last fortnight we have observed striking* INDICATIONS *and corroborations of a most important class of faculties*, &c.'" In March last these faculties were confidently announced as *discovered*, now it appears that there were only "striking *indications*" that some such faculties existed. By and by we shall have a further diminution, and thus these multitudinous discoveries, whether accomplished or in embryo, will become "small by degrees and beautifully less." It is impossible, we think, that Mr. Hall's system can live another year.

Of the "Retrospect" this month we need say nothing further. It is a counterpart of all that have preceded it—abundance of rejoicings at the prospects of mesmerism, personal attacks and personal defence, and a few minor explanations constitute the whole of it. With the exception of three short letters, the remainder of the work is taken up with Mr. Hall's lectures and experiments at Derby and Nottingham. In these articles Mr. H. appears to much greater advantage than in his editorial "Retrospects." Many of his experiments are satisfactory, curious, and novel, and they seem to have been conducted with great skill and fairness. One of the letters alluded to is a curiosity, and we shall copy it some other time. The writer (Mr. Pennington) seems disposed to rival Mr. Atkinson, for he has found a female "quite ignorant of Phrenology when awake," who, in the mesmeric sleep, "appeared to read the numerous organs of the mind with as much ease as if she were reading a book; and her comments on the localities and functions of each organ were most surprising, and would not have disgraced a Gall, a Spurzheim, or a Combe." !! But we must take our leave of the *Phreno-Magnet* for the present.

INTELLIGENCE.

MESMERIC CASE AT DEPTFORD.

[As the following case has excited much interest and commentary, having gone the round of the newspapers, and as many inaccurate reports have been circulated in reference to it, we avail ourselves of the following letter, which has appeared in the last number of the "Medical Times," and which gives an account of some interesting experiments lately performed upon the patient in question, in the presence of several medical gentlemen. We have authority for stating that the patient, while in his first long sleep, manifested no clairvoyant phenomena whatever, nor indeed has he manifested any such at all, neither has any pretence of the kind been set up by his mesmerisers. All the fine stories about ideal visits to Madame Tassaud's Bazaar, &c., are therefore the mere poetic embellishments of the reporters, or their informants. A story seldom loses any thing but truth in its transmigrations.]—ED.

(To the Editor of the "Medical Times.")

SIR,—If you deem the following statement of facts worth inserting in your valuable journal, I have no doubt they will be found interesting to many of your readers.

In consequence of the report in the papers, and the letter from Mr. Hope, a young gentleman who, I believe, is studying on board the Dreadnought hospital ship at Greenwich, I called to see the lad on Monday. He is of a pale complexion, with light hair—what would be described as a sanguine lymphatic temperament. I arranged to meet Mr. Hope at 10 o'clock the following morning. After waiting above half an hour, during which several of the leading medical men of Greenwich and Deptford had arrived, Mr. Hope sent a letter by a gentleman, who stated he was a reporter, excusing himself for non-attendance, repeating his assertions, and calling upon Dr. Taylor, (who, he said, he understood would be present,) to uphold the dignity of the medical profession in his absence. How the dignity of the profession should, in any way, be dependant on Mr. H., we could not conceive—at any rate, he was wise to leave its maintainance to another; for certainly, if he continues to make public such rash assertions, he will find it trouble enough to maintain his own dignity; and, certainly, judging from the very gentlemanly, and, at the same time, strictly winning demeanour of the gen-

tlemen present, I should say they are quite able to maintain their own dignity, and can well afford Mr. H. all his time and energy to prove some of his assertions.

The reporter present undertook to forward a faithful report of what occurred; although being a friend of Mr. H.'s, perhaps the report may not appear.

I proceeded to mesmerise the boy by looking at him at a distance of about four feet; in three minutes his eyes closed, and in seven his head fell back, he being in a state of mesmeric coma: the time was noticed, and the patient examined by, I believe, Drs. Atkins, Taylor, and Purvis. The patient's sense of hearing was very acute; he did not like to hear any speaking. By blowing, and making a few passes without touching him, he was deafened. The gentlemen present endeavoured to obtain some indications of his hearing by shouting in his ear; some commanded, others spoke soothingly; but there could not be detected any motion, or action at all indicative of the sounds having been heard. Then, at a sign from a gentleman present, I made adverse passes, and some one whispered across the room, asking him a question, to which he assented by nodding his head. This experiment was several times repeated; the muscles of the legs and arms were made partially rigid, and then relaxed by passes. The medical gentlemen declared it to be their decided opinion that the boy *could* not *simulate* these conditions. Two of the phrenological organs were touched; the manifestations were correct, but very slight. Several other experiments with regard to the breathing and motion of the eye-balls were successfully tried. Owing to the delicate state of the boy's health, it was deemed expedient to awake him: in fact, the object was to strengthen his system, and not to experimentalise upon him, or much more striking results could have been produced. Never having had five minutes' conversation with the boy, it was impossible that there could be any understanding between us; in fact, if I could have any motive to deceive, I thereby should be able to succeed better, and would have had stronger manifestations. The boy was ordered to awake in three minutes; he opened his eyes in two, and stood up; but, upon leading him into the next room, passes were obliged to be made to arouse him. The gentlemen present, whose conduct throughout showed their sincere desire to discover the truth, expressed their decided opinion that any question of collusion or deception on the present occasion was out of the question; and that, so far as the mesmeric experiments went, they felt justified in saying the subject appeared to be deserving further investigation; and it is intended, I believe, to make arrangement for a lecture at the Hall at Greenwich, in which cases, illustrative of the different phenomena, will be shewn. Thinking it but justice to state these facts, in vindication of an important truth, as well as to shield a whole family from a charge of gross deception, and hoping Mr. H. will attend the investigation of this subject, and that he may have moral feeling enough to acknowledge publicly the error he has committed in making assertions upon subjects of which he is evidently ignorant. I remain,

Yours, obediently,

W. J. VERNON.

December 27, 1843.

CORRESPONDENCE.

CASE OF CROSS-MESMERISM.

To the Editor of the People's Phrenological Journal.

SIR,—At the suggestion of your much-respected predecessor in the editorial department of the *People's Phrenological Journal*, I have indited the following account of a very instructive case of *Cross-Mesmerism*, which came under my management, and in which he (Mr. Vernon) was the party producing, in quite an unexpected manner, that alarming and singular phase of mesmeric phenomena known by the above appellation. The case is most instructive, as showing the necessity of great caution being observed in the management of all such patients as are susceptible of being affected by the mesmeric agent in any high degree, in order that any similar alarming consequences may be averted. I trust it will, also, have some degree of influence in deterring many from rashly venturing upon the experiment of trying the extent of their powers as mesmerists, before they have duly qualified themselves for controling all the effects which may arise from its application, in every variety of case in which its application may be thought beneficial.

Yours respectfully,

GEORGE HOLMES.

London, December, 30, 1843.

HISTORY OF THE CASE.

The patient in the present instance was a lady of a highly nervous temperament, aged 18. For some time past she had been suffering from much general debility, arising from those derangements of the organic functions to which females are peculiarly liable. About two months back she was attended by a physician, who treated her with mesmerism for about a week, with decided advantage to her general health. This gentleman, however, being obliged to leave town for a considerable period, left her under the care of a lady, who has attained considerable skill in the various mesmeric processes. The patient had been magnetised by this lady about four times a-week for about a month previous to the occurrence of the cross-mesmerism, up to which time the patient continued perceptibly to improve in her general health.

It may be proper for me here to state, that the patient had also been, on four occasions during this period, mesmerised by myself, and that I had daily opportunities of observing the progress of the case during the above period,—a privilege of which I fully availed myself, as the phenomena manifested by the patient while under the mesmeric influence were of a higher order and greater in variety than what are more generally observed. To give *all* the particulars of the phenomena manifested on these occasions by the patient is not the object of the present communication, but only such of them as will indicate the particular degree of susceptibility of the patient to the mesmeric influences, as showing

that the greater the susceptibility of a patient, the greater is the necessity of great care being taken in its management.

The mode adopted for entrancing the patient has generally been that of a fixed gaze into her eyes, a minute generally sufficing for the production of the desired result—viz., a most tranquil state of sleep. In this state of perfect tranquillity she, however, would rarely remain long, but would generally pass into that particular state of the mesmeric sleep, called sleep-waking, —a state which highly exalts the functions of one set of faculties, while others appear to be in an actual state of torpidity: as for instance, the sense of touch would be apparently totally suspended, while that of hearing would be greatly exalted, and *vice versa*. It is, however, easy to cause this patient to remain pretty permanently in the tranquil state of the sleep when thought desirable, and also to induce upon her a state of rigid catalepsy. Another peculiar phase in her case, also, must be mentioned—viz., that of *delirium*, which will supervene upon her if she is demesmerised for the purpose of waking her out of the mesmeric sleep, instead of allowing it to continue undisturbed up to a certain time fixed upon by the patient herself.

From this it will be seen that the patient is susceptible of being thrown into different degrees or stages of the mesmeric sleep—viz. 1st, a *tranquil* and unconscious state; 2nd, the *sleep-waking* or state of double consciousness; 3rd, the *cataleptic* or state of total insensibility to all external existences; 4th, that of *delirium*, or state of high internal consciousness of objects supposed by the patient to be present, but which have no real existence external to the patient. I may here also remark, that either of these stages may be produced upon the patient, and that they can also be *reduced* at the option of the operator at the same sitting. It is also proper to remark here, that her cerebral organs are susceptible of being specially excited through touching the head of the operator, an experiment which I am disposed to regard as the most important of any that have hitherto been brought forward as an evidence of there existing a connexion between Phrenology and Mesmerism.

Having stated thus much to show the degree of susceptibility of the patient to mesmeric agency, I will now proceed to state the manner in which she became cross-mesmerised, and the way in which she was subsequently treated to relieve her from its effects.

On the occasion of the cross-mesmerism, a select number of professional gentlemen were present by special invitation, for the purpose of giving them the opportunity of witnessing the remarkable range of the phenomena manifested by the patient while in the trance. Amongst them were two gentlemen connected with the *Medical Times*, and Dr. Ozan, of the Homœopathic Institution, Hanover Square. The patient was entranced by the lady-magnetiser previously referred to. Various experiments were then tried at the suggestion of Mr. Vernon by the magnetiser. In the course of these he was put in magnetic communication with the patient, and his will appeared to have the same influence over her as that of the original magnetiser, for she obeyed his commands, which were only mentally expressed, and also seemed to penetrate into all his thoughts. About half an hour after this magnetic communication was first established between them, a short pause ensued, which was succeeded by the *mesmerised* proposing to magnetise Mr. Vernon, and at once proceeded to do so, with all the confidence and air of a regular magnetiser, to the great amusement of the parties present. For about a minute Mr. V. sat passively under her manipulations; but, afterwards, he, without anticipating any result, determined upon trying the effect his will might have in throwing upon her his own influence, instead of sitting passively under her manipulations. The result of this determination of Mr. V. was that the young lady was almost instantaneously overpowered by him, and fell back in her chair in a state of *coma* or total insensibility to all external stimuli. Efforts were then immediately made to demagnetise her by both Mr. V. and the original magnetiser simultaneously, using the demagnetising processes. In the course of fifteen minutes the patient manifested signs of returning consciousness, and then again relapsed into total unconsciousness. After the period of another quarter of an hour, her state changed into convulsive hysteria, and notwithstanding the continued efforts of Mr. V. and the original magnetiser to relieve her, she continued in this condition for the following hour and a half, at the termination of which I proposed that both magnetisers should withdraw from immediate proximity to the patient, and allow me to take her hand. This proposition was acceded to, and in the course of five minutes she was restored to consciousness by me. She, however, still continued to complain of having a most oppressive headache. Being left quietly to herself, in half an hour's time she spontaneously passed into a state of delirium, upon which my demagnetising processes had no effect whatever, and which, therefore, convinced me that she was suffering from cerebral congestion. I next proceeded to apply cold water to the head, and to make the long passes downwards from the chest to the feet, and succeeded in bringing her to a temporary state of tranquillity, but not to a perfect state of restoration till five days and four nights had passed away. During nearly the whole of this time the patient continued in a delirious state, and required constant attendance. During this time she received the professional advice of Dr. Ashburnham, physician to the Middlesex Hospital. It was found, however, that the most efficient means of subduing the delirious excitement was that of frequently magnetising with the long passes from the chest to the feet. Internal remedies were also found highly beneficial for her ultimate and permanent relief, although they could not be said to give her any immediate relief. I should mention that it was from half an hour to an hour before the magnetising process would affect the patient while in this state of delirium, showing that the brain was in a state of negation and antagonism with the magnetic agent.

From the preceding statement the superficial reasoner would conclude, that the patient's condition of delirium was entirely caused by the influence of mesmerism. It, no doubt, was the proximate cause, but it was far from being the efficient one, as is proved by the fact that the patient was ultimately restored by its aid, and that she continued to be daily magnetised, with much advantage to her health, ever since her recovery from this state of delirium, making now a period of three weeks. There can be no doubt, however, but that the delirium was superinduced by the conjoint magnetic influence of two persons acting upon her at the same time, and producing an over excitation of the brain, and consequently delirium; similar to what may be produced by an over dose of any kind of highly stimulating agent in medicine, when administered under a peculiar condition of the organic system.

The fact that this overcharge of magnetism should produce this high degree of excitement, while in a more modified charge from a single person, it produced the very opposite state of tranquillity, is strictly in harmony with the known effects of variously modified doses of mercury and opium, and proves that Animal Magnetism has as defined a mode of action on the organic and mental functions, as many of our other known remedial agents. It may also be interesting for me to mention a remark generally made to me by the patient, whenever I attempted to magnetise her during her delirium, by gazing upon her—viz., that she felt something like a *cold breeze* passing through her brain into her body, and that it made her very sleepy. Her eyes on these occasions were always entirely closed, so that the feeling she experienced, cannot be referred to imagination. It is here worthy of remark that this feeling of coolness quite harmonizes with the fact, that magnetism during this time, had a sedative action upon her system. I had also forgot to mention another rather unusual phenomenon manifested by this patient after she has been magnetised, by pointing to the epigastrium for a few minutes—viz, a total insensibility to all sounds through the medium of the ear, while, at the same time, she becomes acutely sensible to the slightest articulate whisper from the soles of the feet, or the tips of the fingers.

In conclusion, allow me to observe, that I trust that the foregoing statement will be a stimulus to many to obtain all possible information on the extent of the powers of mesmerism, before they venture to make experiments with even a single human being.

To the Editor of the People's Phrenological Journal.

SIR,—You have done me the favour to express a wish, that I would "have reference occasionally to the views" you "have expressed on the subject of large and small foreheads." These views I have not yet acquainted myself with, by the perusul of any of your writings thereon, and this fact will probably render our separate opinions more interesting than if I were informed of your theory any further than the little I have heard, and what I can gather from the *note* to which I refer in your paper of the 23rd instant.

I was not long a *professed* phrenologist before I saw how likely the public are to be led astray by those heads that are presented as admirable specimens, such as Bacon's and Melancthon's in most of the phrenological books; and in my lectures and private teaching, I have dwelt specially upon the evil consequences of looking on such foreheads as the "beau ideal" of intellectual organization. He who would estimate foreheads correctly must make the reflective region but a secondary consideration, the primary being the perceptive region, to the examination of which the attention must *first* be closely directed. With a really good perceptive region no forehead is small, though the ordinary observer who looks first, and almost exclusively at the reflective region may deem it to be so; and when I hear the uninitiated talk of "splendid foreheads," "amazingly elevated frontal regions," &c., I picture to myself some "wisest fool in Christendom," some "simpleton sage," who *will* reflect and idealize, and who *will not*, and cannot, observe; who will *conclude*, but who wont *premise*. The class of foreheads here alluded to is numerous, and to be found with nine-tenths of the impenetrable project-mongers about town. A gentleman of this description called on me some months back, partly to unfold some ridiculous project for educating the world "in no time," by museums and lectures on *everything* and much more besides, and partly, I guess, to astonish me with a view of his forehead. Of reflective and imaginative faculties the man had an abundance, but you looked in vain for the observing. Nature had carefully thumbed in the eyes of the mind; two large staring *bodily eyes* there were, but the poor reflective faculties were imprisoned in their "cloud-capped towers," and seemed as if their continual cry was—

> "Let's take a flight towards heaven to-night,
> And leave dull earth behind us."

Of these "splendid foreheads," I have seldom seen one worth a button, whilst I have seen great powers in men, with what are usually deemed small foreheads; and to these facts, and to the ignorance which prevails as to the best type of forehead, Phrenology owes many opponents, or, what is worse, many who are regardless of the science from being so much thrown out in their early observations, in consequence of the false estimate made as to large and small foreheads.

That class which the general run of observers deem to be small foreheads, is composed of those with good perceptive faculties, but with moderate reflectives. But such foreheads are not in reality, small; Washington's forehead is of this class, so is the Duke of Wellington's; excuse me for naming them together; so are the foreheads of the majority of clever artists and mechanicians. If a man be a good observer, he can, in most

cases, *take time for reflection*; he can beg, borrow, or steal reflections—observations he must make himself, and make them rapidly, or lose the opportunity for ever. For these reasons, a man can afford to be a slow reflecter, whilst he cannot afford to be a slow observer, if he wish to be a practical man; and hence it is, that it is better, in nearly all cases, to have good perceptive faculties, and moderate reflectives, than to have ever so large a reflective region with but moderate perceptive powers.

But, in thus doing justice to what are called small foreheads, let us not pass by the fact, that in the intellectual region, as in other parts of the brain "Size is a measure of power;" let us not in forming a due estimate of the perceptive as distinct from the reflective faculties, like—

"Captious schoolmen teach their friends to fight,
More anxious to divide them than unite—"

let us not forget that to constitute a really fine head, we must have a large forehead, in the true sense of the term *large*, and let us not forget, if we see so many men with large upper foreheads, who are yet but wild and vague thinkers, that the popular systems of education are by no means calculated to remedy any inherent defect in the perceptive faculties, but that they are eminently adapted to increase such organic defects, by directing the mind to the study of dead languages, and to the studying of the abstract laws *only* of the perceptive faculties. In the physical sciences alone, can the perceptive faculties find fitting exercise when fully developed; in these alone can they find remedial exercise when naturally weak, yet to these not one youth in fifty is directed by even the highest class of educators. When, therefore, I see so many men, who with large reflective faculties have never been supplied with *materials for thinking*, by education, and who had not inherrent perceptive powers sufficiently strong to enable them to cater for themselves, I grieve the more that the physical sciences are so much excluded in education, whilst the valuable years in which the perceptive faculties are so docile, are consumed in a species of mental prison.

In conclusion, as to large and small foreheads, I presume that you and I agree in preferring moderately developed reflective faculties, with large perceptives, to the contrary. My experience fully supports the opinion that great efficiency and intelligence are to be found in persons with rather small heads and foreheads, who have good perception, attention, and self-confidence. Yet, we must acknowledge, that, with more size, small heads would have more power, and that with a more liberal region of the reflective faculties, their sphere of operations would be more extensive. In teaching practical Phrenology, this admonition should be often repeated—"In estimating intellectual organization, give your entire attention, *first to the perceptive region*, for to the formation of a really good intellect, these faculties are the "sine qua non." These observations have been penned in haste, and amidst much interruption. In my letter in your last number there are some typical errors which would tend to class me with some of the *unedicated dewelopers* of the day, men who did well enough in their day, and in their way, but who now serve only to make Phrenology *advance backwards*.

I am, Sir,
Your obedient servant,
C. Donovan.

1, *King William Street, West Strand.*

To the Editor of the People's Phrenological Journal.

Sir,—I beg to offer you a few observations relative to the somewhat paradoxical question of great talent being not unfrequently found in conjunction with a small or moderately developed forehead, which you have noticed at some length in your recent lectures, and to which you have again reverted in a late number of the "People's Phrenological Journal." You were, I believe, the first to draw public attention to the subject, and in reference to my own opinion, I freely admit that I have, on several occasions, met with cases of a character which could not be fairly and faithfully explained by the ordinary rules relative to development only, either in reference to a particular organ, or the general dimensions of what is denominated the intellectual region. This, as may be expected, had a very discouraging effect on my own mind, affecting the truth of the science itself, and consequently I felt determined either to abandon the science, or seek out some new rule whereby to solve this strange difficulty. While thus pondering over the matter, among other things, it occurred to my mind that possibly it was owing to some peculiar constitution in that particular organ resulting from an over activity in one or both parents, and thereby transmitted with additional vigour to the child. This peculiarity I considered in no ways to be limited to any particular organ of the brain, but applicable to all without exception according to what may have been the prevailing habits of the parents. Neither am I destitute of facts in corroboration of these views having met with instances of an inordinate propensity to thieving, existing where no organic preponderance of Aquisitiveness over its antagonistic organs could be found. And so also in reference to several other feelings of the mind. But notwithstanding this, the announcement of your views, apparently striking at the very foundations of Phrenology, and subverting its most fundamental principles, could not but make the mind feel as a vessel without either rudder or cable whereby to ride out the anti-phrenological storm which is still in a degree raging around us. To the best of my recollection you have not as yet done more than contend for the existence of the fact without tendering any explanatory theory; and if I shall not be interfering with your arrangements, or anticipating your views, I beg to state that since reading Mr. Merryweather's observations on the cortical substance of the brain, I feel more fully confirmed in my former views that a constitutional difference may or does exist, between one organ and another, whereby a smaller organ may manifest as much nervous or mental energy as a larger, by a greater quantity of the cortical substance accumulating over the particular organ then under observation. How this may take place, is not for me to say, but

we have analogy in support of our views, and if this will hold good in regard to one organ, what is there to prevent its being applied to each of the three grand divisions, or, to the mass of the brain, so that for anything that we can know to the contrary, a small organ or region of head, may display as much talent or energy as a much larger, and as we cannot possibly see the brain in the living subjects, much less can we ascertain the proportional quantity of cineritious and medullary substances, what then (may I ask you) becomes of the entire fabric of the science of Phrenology? How such a difficulty is to be conquered I confess myself at a loss to say, and, therefore, a satisfactory explanation of this, and some of your own rather startling views would be very grateful to the mind, for should this view of Phrenology ultimately prove true, there is a new condition or element to be taken into consideration, and consequently a new difficulty, and one, in my estimation, more formidable than any hitherto met with, which will require to be surmounted before the science can be considered anything approaching maturity. I am somewhat curious to see in what way you will meet this stumbling block.

Yours, very respectfully,
ROBERT JONES.

Liverpool, December 12th, 1843.

[We are much pleased by the candour and fearlessness of consequence displayed in the above letter. It is only by looking difficulties in the face, unflinchingly, that they are to be speedily subdued. Phrenology would have been much farther advanced than it is, had it been the fashion among its cultivators to state difficulties and objections thus broadly. Neither would such a course have tended to give even a momentary triumph to the opponents of the science. On the contrary, it would have disarmed opposition, by convincing these opponents that phrenologists were neither deluders nor mere enthusiasts, but candid and discriminating inquirers after truth. Mr. Jones, however, may dismiss from his mind, all apprehensions as to our opinions interfering with the fundamental principles of Phrenology. They are not only in harmony with these, they are their legitimate consequences. It is because these principles have been so very partially understood, that our views seem to conflict with them. The peculiar character of all our phrenological reasonings and theories, is the perpetual and anxious endeavour to reach the ultimate elements of the science, to define with the most jealous rigour its fundamental laws, and to carry out those laws with equal rigour. How far we have been successful is another matter.

Phrenology *does* admit of becoming a practical science. It is impossible we can doubt of this fact, after the long and extensive experience we have had as manipulators, *therefore* Mr. Jones's views regarding the activity of single organs, cannot be accurate to any considerable degree. In our own experience, we have never noticed anything to warrant the conclusion that isolated organs ever have a greater activity than those belonging to the general organization, unless perhaps in a few special cases, and in these, this activity may, according to our principles, be predicted from external appearances, or at least the manipulator may always, in such cases, be on his guard. We have, however, continually noticed the very curious fact, that in some individuals, the smaller organs generally, or certain *groups* of them, are much more active and excitable than the larger, and this, not from any special exercise, but constitutionally. We have known individuals who were highly excitable in a region of the head but moderately developed, and absolutely phlegmatic in that which was largely developed. In these cases, the respective peculiarities were unequivocally manifested, without there being a shadow of reason for attributing the effects to education, habits, or any cause of that kind. Our system gives a most simple, and, we believe, satisfactory explanation of these cases, which are of frequent occurrence, and also points out the means of ascertaining when they do occur. The whole matter is very curious and important, and we shall hereafter give a full explanation of our views upon it. It must be observed, however, that in these cases, the large organs though more slow in action, actually produce more powerful and permanent effects, than the smaller. These latter are very vivid and forcible for a time, but their effects are far more evanescent than those of the former.]—ED.

To the Editor of the People's Phrenological Journal.

DEAR SIR.—I have taken the liberty of forwarding you this report of some phreno-mesmeric experiments, in consequence of the two letters which appeared in the last numbers of your journal—one from the late Editor, the other from S. Purland. If you consider that the experiments here related will be interesting to your readers, or calculated to throw some additional light on the other multifarious phenomena of Mesmerism, and the late Editor's ideas of a subtle fluid, your correspondent will feel highly gratified by their insertion.

The experiments were conducted upon two good phreno-mesmeric patients, a male and female, both of an age,—about eighteen,—of a mixed temperament, the male having the nervous predominating. He was likewise both deaf and dumb. Both being very susceptible of the mesmeric influence, by one or two wafts of a handkerchief. They were situated about a yard apart from each other, without being in the least connected. While in this state of perfect separation, there existed between them a most surprising sympathy. Most of the phrenological organs excited in the male were likewise manifested by the female; but while exciting her brain, there was scarcely a manifestation to be observed in him, he being, as I should presume, possessed of more nervous energy. Upon his adhesiveness being excited, he immediately closed up to her in the most affectionate manner; she would at the same time extend her hand as if to welcome him, and speak in the highest terms of him. His Self-Esteem now being touched,—the slightest tap imaginable being sufficient to excite most of the organs,—he would dart off in a most haughty manner, turn his chair back to her, and scold her with all his might. Her actions, again, were nearly simultaneous with his; she would

likewise turn her chair from him, at the same time expressing her extreme disgust of him, and asserting her own superiority.' His adhesivness being excited, they would both very affectionately move up towards each other, and again appeared highly pleased with each other's company. These last manifestations, as well as being highly interesting to the enquirer, afforded much innocent amusement to the less thinking. Aquisitiveness being excited, they stole from each other; Veneration, both prayed; Philoprogenitiveness, both appeared to be nursing a baby; Industry, he appeared to be scolding her. She was asked what was to do with him? she said that he wanted her to work, &c. His manner of behaviour to her,—being dumb,—under the excitement of this last organ, would not have conveyed to the parties present his peculiar state of feeling, or what he was cross about. His Benevolence being excited, they would empty the contents of their pockets for each other. The Marriage organ being excited, he would carry on with her a sort of garbled conversation, accompanied by the dumb motion of putting a ring on his finger. She would now and then reply to him. "yes," "to-morrow," "very well," "eight o'clock." &c. &c. Upon being asked what she was conversing about she would not tell. His Self-Esteem being touched, which would, as usual, cause him immediately to fly off, she then said, assuming a most disdainful and dignified attitude, "Why the dirty fellow wanted me to marry him." It was in this dumb patient that this last organ was accidently discovered, and quite independent of any influence from the operator's mind, as I never had the least idea that such an organ did exist, or otherwise that it required a distinct or single organ to produce that desire, but believing with the majority of phrenologists, it to be a compound feeling of Amativeness and Adhesiveness. However, it was accidently manifested while endeavouring to excite his Alimentiveness, at which time he, by dumb attitudes, aided with what few sounds he could utter, went through what may be very appropriately called a marriage romance or adventure. He commenced as if cleaning and dressing himself; afterwards as if enjoying a walk, and while so engaged he appeared to meet a female friend, to whom he addresses himself, then gives her his arm, and walks a short distance with her, then appears dissatisfied and leaves her, and afterwards engages a second, then a third, to whom he ultimately gets married, but leaves her also when finding she is not possessed of a fortune. The time occupied by him to go through the whole of this marriage affair generally occupies about half-an-hour, consequently the whole of the details cannot be given. No definite idea could be obtained of this strange and compound manifestation, until the corresponding portion of the brain was excited in other patients who had the power of giving expression to their feelings by words, which being done, I invariably had the reply from about eight patients in the same town, that they wanted to get married, or were going to be married, &c. The same reply has been elicited by my brother and I from one or two patients in Liverpool, where they were entirely ignorant of the existence of such an organ. Thus as firmly establishing the existence of this organ as any of the others can be, upon phreno-mesmeric principles.

The above sympathetic experiments, were afterwards frequently conducted while the male patient was removed to a separate appartment. The greatest distance to which they were thus separated, was while conducting some public experiments, last September, at the Town Hall, Denbeigh. At which place, after experimenting for nearly an hour upon the female, the male patient was put to sleep, as usual, by a waft of the hand, or handkerchief, and then removed from the platform to the jury-room, which formed a part of the building. The female was left on the platform in the care of a few gentlemen, by whose written request, thirst was first excited in the male patient; which being done, *the female on the platform expressed a desire for something to drink!!* to the evident surprise of the believer as well as the sceptic. Aquisitiveness being excited in his head, she attempted to steal from the gentlemen close to her. The lower division of order, veneration, self-esteem, &c., were successively excited, by request, and each produced equally sactisfactory results. This last experiment was principally tried, in this instance, to destroy the belief or suspicion, that was strongly manifested by the audience, of collusion, &c., existing between the operator and patients; which happily had the desired effect. It took a much longer time to demesmerise each patient, than what it did when they were mesmerised singly. It was but seldom and with the greatest difficulty that she could be awoke first: but as soon as he was demesmerised, she would open her eyes, a little drowsiness only remaining. If he were again sent somnolent, she would gradually fall into the same state, and would remain so until he was again demesmerised. If at any time, she were rather long before she became properly demesmerised, he would experience a very painful sensation, with a difficulty of keeping the eyes open; but was instantly relieved as soon as she was properly awoke. The sympathy that thus existed between them was truly astonishing; and how to account *satisfactorily* for the strange phenomena, is to me a mystery. To offer any lengthened theories on the subject at present, would be rather premature. We have not as yet fully demonstrated common magnetism, electricity, gravitation, and several other of the old discovered phenomena of nature. Not wishing to trespress longer this time on your pages, I beg to remain,

Yours, most respectfully,

EDWARD JONES.

Liverpool, December 20th, 1843.

To the Editor of the People's Phrenological Journal.

SIR,—I have perused with attention your observations on the functions which I attribute to the organ called Language, and shall be glad to avail myself of the liberty kindly afforded by you, of replying to it in the number of your Journal for the next week.

I am, Sir,

Your's, very faithfully,

PHINEAS DESERET.

24, *Calthorpe Street, 1st, January* 1844.

ANCIENT RUINS.

We have been informed by a gentleman who has traversed a large portion of the Indian country of North Texas, and the country lying between Santa Fe and the Pacific, that there are vestiges of ancient cities, and ruined castles or temples on the Rio Puerco, and on the Colorado of the west. He says that on one of the branches of the Rio Puerco, a few days travel from Santa Fe there is an immense pile of ruins that appear to belong to an ancient temple. Portions of the wall are still standing consisting of huge blocks of lime-stone, regularly hewn and laid in cement. The building occupies an extent of more than acre. It is two or three stories high, has no roof, but contains many rooms, generally of a square form, without windows, and the lower rooms are so dark and gloomy that they resemble caverns rather than the apartments of an edifice built for a human habitation. Our informant was unable to describe the style of architecture, but he believes it could not have been erected by Spaniards or Europeans, as the stones are much worn by the rains, and indicate that the building has stood several hundred years. From this description we are induced to believe that it resembles the ruins of Palenque or Otulun. He says there are many similar ruins on the Colorado of the West, which empties into the Californian Sea. In one of the valleys of the Cordilleras traversed by this river, and about 400 miles from its mouth, there is a large temple still standing, its walls and spires scarcely presenting any trace of dilapidation, and were it not for the want of a roof, it might still be rendered habitable. Near it, scattered along the declivity of a mountain, are the ruins of what must have been once a large city. The traces of a large aqueduct, part of which is, however, in the solid rock, are still visible. Neither the Indians residing in the vicinity, nor the oldest Spanish settlers of the nearest settlements, can give any account of the origin of these buildings. They merely know that they have stood there from the earliest periods to which their traditions extend. The antiquary who is desirous to trace the Aztec or Toltec races in their migrations from the Northern regions of America, may find in these ancient edifices, many subjects of curious speculation.—*Texas Telegraph.*

Magnetism.—Magnetism, or the action of Magnetism, springs from three things; first, the will to act; second, a sign, the expression of the will; third, confidence in the means employed. If the desire of doing good, be not united to the will to act, there will be some effects, but these effects will be irregular.

The fluid which emanates from the magnetiser, exercising a *physical* influence upon the patient, it follows that the magnetiser should be in perfect health. This influence exerting, in the courss of time, an effect upon the moral condition of the recipient, it follows that the operator ought to be worthy of esteem, for the uprightness of his mind, the purity of his sentiments, and the honesty of his character.—*Dr. Collyer.*

ANSWERS TO CORRESPONDENTS.

G. Bell.—Our correspondent's complaints are just, as far as the mere fact of delay is concerned, but he is somewhat precipitate and severe in assigning blame. We have called the attention of the parties who manage these matters to his letter, and we learn that the *Index* to the 1st volume of the Journal will be delivered with number 51, and also with the following monthly part. The delay has not resulted from any inattention, but from circumstances which it would be needless to specify.

Mr. Merryweather's communication has been received, and also Mr R. Jones's letter.

Mr. Preston's Letter was set up for the present number, but want of room, and the nature of our other matter, neeessitated its omission. It shall appear next week.

Mr. Grainger and *Mr. Hibbard* will hear from us privately in the course of next week.

THE PHRENOLOGICAL LIBRARY.

Commencing with Gall's Works on Cerebral Physiology; or, the Functions of the Brain. Weekly Numbers, Price 3d., Monthly Parts, 1s. 8vo.

The "Illustrated Phrenological Chart," with Forty Woodcuts, by first-rate artists, shewing the different Groups of Organs, large and small; Sections of the Brain, with the convolutions marked; and Portraits of Gall and Spurzheim, Price 3d.; and on Superfine Royal Drawing Paper, 1s.

"Matrimony," or, the Principles of Phrenology and Physiology, applied to the selection of suitable companions for life; including directious to the Married, by O. S. Fowler, Editor of the American Phrenological Journal, Price 1s.

LONDON PHRENOLOGICAL INSTITUTION. 7, King William-street, Strand, Established by Mr. Donovan in March, 1840. Mr. Donovan's engagements, with country institutions, closed on the 20th of December, and he may now be consulted as usual at King William Street, daily, from Ten to Six. Mr. Donovan's fee from the wealthier classes is half-a-guinea at the minimum; but he is at all times glad to devote his time to the operative classes on terms suited to their means, feeling convinced that the progress of Phrenology will be rather from the humbler to the higher classes than the contrary, and being anxious that those most willing to receive its benefits should not be excluded by a prohibiting fee.

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A COMPLETE SYSTEM OF PHRENOLOGY.

IMITATION—(*Continued*).

IT is the same off the stage. Some are always acting; but according to circumstances they will assume a more or less elevated character, the success in maintaining it in both cases will depend much on the intellect; its manifestations are likewise apparent in the works of the dramatic author, the poet, the painter, the sculptor, &c. They must conceive, and be able to embody both the feelings and manners of others, they imitate either with the pen, pencil, or chisel, and the subjects excelled in will be in relation to the other most predominating organs, one excels in caricature, and the other in historical subjects, while a third soars in the regions of wonder, and loves to see the creations of his own fertile imagination. Individuals who have this power strong, easily adapt themselves to society with which they mingle, they take, as it were, their tone from surrounding objects, will dress, talk, walk, and do as others do, and are generally able to do a little of anything, they sing, dance, draw, by imitation, without study, or indeed possessing the necessary qualification for excellence in any of these pursuits. They are generally fond of telling stories, which they embellish by touches of nature, taking Mr. or Mrs. Somebody to the very life. Combined with wit and high temperament, the bounds of reason are often o'erstepped, and of truth too, although only in the desire of making the tale more amusing. Love of approbation and Ideality both tend to increase this effect. When this organ is too feeble in its action, the individual will be grave, pedantic, and monotonous in his manners and ways. There will be little physiognomical expression when speaking even of the most important events, the countenance remains as immovable as a statue. What has to be said, is said in the fewest possible words, and without any circumlocution or embellishment; they soon tire of a long story, but Secretiveness may aid in the assumption of this as well as all other phases of character, we must be at all times on our guard not to attribute too much negatively or positively to any single organ.

This organ is generally large in children, and this shows the wisdom of the proverb that one example is better than twenty precepts, and points out further the necessity of surrounding them with circumstances worthy to be imitated, and the responsibility of all teachers, parents, &c. to hold up in their own words and deeds the highest possible examples for the imitation of the young they have undertaken to train and educate.

EXAMPLES.—The most striking examples of this organ will be found among actors and actresses, the late Charles Mathews and John Reeve had this organ remarkably developed; in the busts of Clara Fisher it is very prominent. It was large in Talma, Garrick, Debureau, Miss Kelly, Mrs. Siddons, Eugenia Sauvage, Estelle Guivard, in a word, in all who have displayed great power in imitating, but it is impossible by any amount of Imitation to be a great actor. The feelings and sentiments must be experienced to be adequately represented, and the intellect must be active, to discriminate between the nice shades of characters. Great actors are then always found with fine heads. The powers predominating generally, being Secretiveness, Love

of Approbation, and Imitation. A knowledge of the results of this combination shows at once, the cause of many of the peculiarities of the profession, their constant acting, &c. The same remarks may be extended to poets, authors, and most public characters, all under the influence of the same powers, are equally desirous of distinction and envious of others acquiring it. It is generally small in the heads of criminals, especially the paricides and murderers, whose casts we have in the phrenological collections. Greenacre, Martin, Linn, &c. &c. are cases shewing this fact.

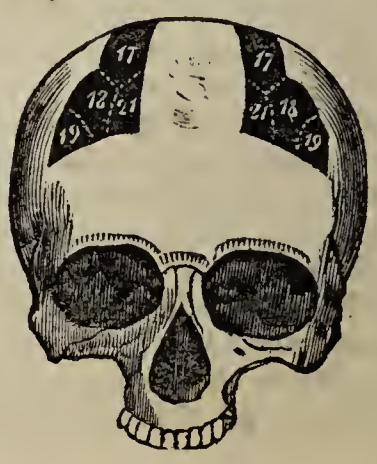
Animals.—Animals possess this faculty, some species in an extraordinary degree, and the organ is found proportionably developed. It is very large in apes and monkeys. Many attribute to this power the expression of the feeling experienced by animals in their cries, and likewise the understanding of them by other animals which hear them. For instance, the cry of a mother when she perceives danger approaching her young. Their appreciation of the meaning, and instantly rushing towards her for protection. Different tones among various species of animals, convey to all the signal for departure, for assembling, &c. &c. These views may be premature but the subject is one of great interest and deserves the utmost attention from all philosophical naturalists. The formation of the brain of animals has hitherto been too much neglected. There is no doubt but that if this subject was sufficiently understood it would be the most correct guide to a perfect classification of all the different races of animals from man to the lowest animal in creation.

Dr. Vimont places the seat of the organ in quadrupeds and birds in the same situation as in man; "It enlarges," he says, "the lateral parts of the middle and superior portions of the head." He has pointed out the difference in the appearance of this part, in those birds which easily learn and imitate the tones of other birds or musical instruments, and of those which can only be taught with difficulty or not at all. He shows the remarkable development of this organ in parrots, magpies, the raven, jay, &c. &c., and particularly in the mocking-birds; the habits of all these birds it is well known afford a coroboration of these views. Those which may be taught to speak no doubt possess other portions of their organization peculiar in addition to being gifted with the powers of imitation, therefore much observation will be required to fully comprehend upon what especial peculiarity certain powers and aptitudes depend.

Natural Language.—In respect to the natural language of imitation it is rather an assumption of the natural language of all the other faculties, it imparts expression to the features and induces much gesticulation, everything is expressed by pantomime and change of the tone of of voice as well as by mere words; when it is small an individual will recount a tale of joy, or describe the most mournful ceremony with the same monotonous voice and gesture. Never once suiting the action to the word, this expression has by many been supposed to result from sympathy, and we are not wanting in theories which would transform this organ into the organ of sympathy, we cannot ourselves believe in the existence of such a primitive faculty, but in the present instance our object is rather to give a view of the whole series of organs as most generally received, merely pointing out some of the novel views in respect to them; in due time there will appear in the journal papers relative to the analysis and sphere of action of all the established organs, as well as of all, if there be any, new ones discovered, the discovery of which rests upon a sufficient amount of facts to warrant the conclusion. We have gone through the whole of the propelling faculties, which class includes what is generally comprehended in the feelings and sentiments, but the whole of which have certain qualities in common, which we define as urging to acts of some kind or other, hence their denomination of propellants, for facility of observation we have classified them in groups, and by confining the attention to a few striking cases in which these groups are large and small. A pretty correct notion of the shape of the head in these particular directions will be arrived at, and the way of looking for single organs standing out prominently or presenting marked depression will be avoided, it cannot be impressed too deeply upon the minds of students that they must always regard the size and shape of particular regions of the head as the index of the volume of any portion of the brain, it is only in extraordinary cases that a single organ is found very large with the surrounding ones very small, or if very small, with those close to it large, which must be the case to produce either a decided prominence or depression. We shall now proceed to the consideration of the intellectual faculties, the seat of which is in the anterior lobe of the brain.

PROGRESSIVE GROUP.

LARGE.



SMALL.

(To be continued.)

THE

PEOPLE'S PHRENOLOGICAL JOURNAL.

Our remarks last week on the concentrative tendencies were, unavoidably, so brief that we feel anxious to give some further explanation of our opinions on this interesting subject. To give a full exposition of our views, and of the reasons for holding them, would far exceed our present limits or leisure, besides which, we are not quite satisfied that we have reached the ultimate analysis of the faculties in question, though we see no reason for doubting our having closely approximated to it. Our readers must, therefore, regard the following remarks rather as an explanation than as a defence of our positions.

Mr. Combe, in his statement of the principal peculiarities of character, dependent upon the development of this region of the brain, is, in general, very accurate, but we look upon his analysis as wholly inadmissible. Equally so do we consider that given in the valuable paper which he quotes from the third volume of the *Phrenological Journal*. The idea of one organ being set apart for the purpose of giving force or permanency to the actions of others is wholly inconceivable on any phrenological principles that we are acquainted with. The force with which an organ acts in any given case, must depend upon its constitutional energy, the amount of the exciting impulse, and the pre-occupation of the mind at the moment of excitement: the duration of the excitement must depend on its force, on the quality of the organ as to temperament, and upon the nature and amount of subsequent excitements whether by the same or other organs. Besides, each organ must have an independent action, and a special excitant, and furthermore the organ in question belongs to the social group of faculties, or is, at least, of an intermediate cast, partaking partly of their nature, and partly of that of the organs above it; whereas the analysis given of it would rather apply to a sort of controlling intellectual power than to an affective and social instinct. That we believe this organ to affect the intellect in a high degree is evident from our remarks last week, but we look upon this result as being produced in a very different manner from that suggested by Mr. Combe, or the writer alluded to. We believe this organ to act upon the intellectual faculties, if such an expression be admissible, in the same manner that Philoprogenitiveness, Amativeness, Combativeness, Ideality, and all other organs of feeling act. To speak in the technical language of phrenologists, it pursues its own objects, seeks its individual gratification, and in doing so, peculiar intellectual results, as well as peculiar social and moral results, are the consequence. But in all this there is connected action, not government; no organ can govern an other, in any real sense; we may speak of such things in a relative sense, or metaphorically, but that is all.

In the part of the brain between Philoprogenitiveness and Self-Esteem, there are, in our opinion, two organs at least, and we extend this space far beyond the limits of the organ marked number 3 on the busts. The organ of Self-Esteem as marked on the busts, is placed far too low down, and occupies far too much space; indeed the usual mode of marking the head so as to have the whole of it occupied by the present number of organs, is extremely objectionable. Self-Esteem, in our opinion, and we speak as practical phrenologists, occupies the posterior third of the organ of Firmness, and about an equal space of the anterior portion of the present Self-Esteem.* The two organs we are about to speak of, follow successively.

For the first of these organs, the name Concentrativeness, is sufficiently appropriate, at present, though this name merely expresses one of the principal effects produced by this organ, in its combination with the intellect, or other powers. To explain what we consider its function, in a manner likely to satisfy our readers, is a task by no means easy, in a brief and hurried sketch like the present, we shall, however, do what we can, and if we fail, we must make the attempt again under more favourable circumstances.

The excitant of the organ of Causality is some act or thought involving *necessary dependence*, in other words *cause and effect*. Causality does not perceive the various acts that constitute cause and effect; these are noticed by a number of other organs: it is merely called into action in some inexplicable manner, when causation takes place, and then we have, through its instrument-

* Innumerable errors have been made by practical phrenologists, in consequence of the great extension given to this organ. Persons are continually spoken of as having enormous Self-Esteem, when they have only large Concentrativeness.

ality the idea or perception, of causation. Thus, if we strike a table with a stick, so as to make it sound, a variety of faculties are needed to perceive the phenomenon. We have to notice two bodies, one at rest, the other in rapid motion towards it, finally coming in contact, and at the moment of contact, a sound produced. Now, Causality does not perceive the form, size, colour, density or number of these bodies, neither does it perceive the degree or direction of the motion of one of them, nor the sound; there are appropriate organs for all these matters, but yet when all these things are present to the mind, the idea of causation is excited, and this idea, phrenologists know by experiment, to be immediately connected with—organically dependent on the portion of the brain, marked Causality. So, when such a combination of elements is presented to the mind, as constitutes Infancy, though every one of these elements is perceived by other powers, yet a particular organ becomes immediately affected by the combination, and a peculiar emotion is the consequence. So, also, when certain sounds are uttered, certain acts performed, or certain movements of the countenance made, indicative of *approval*, the party approved of feels immediately an emotion of a peculiar kind, and if those be so modified as to express disapproval, he immediately experiences a directly opposite feeling. Now, these sounds are altogether perceived by the accoustic organs, they are equally perceptible whether the organ of approval be large or small, they would be equally perceptible if it were altogether wanting, but yet in some mysterious way, a certain combination of movements in the accoustic organs, produces a pleasurable excitement in the organ of Approbativeness, and an opposite combination painful excitement. Farther than the knowledge of these consecutive facts, we cannot at present go; of the *modus operandi* we know nothing.

Now, in like manner, whenever there is such a combination of circumstances as to indicate a parting, or withdrawal from us, the organ called Concentrativeness is painfully excited, in proportion to the interest felt in the objects parted with, and agreeably excited when there is a re-approach. Many objections start up at once to this announcement, but we think they may be all overruled. It might appear, too, that it is parting with objects of interest only that excites regret, but we cannot logically limit the excitant of the organ in this manner. If absence be the excitant, it must be absence universally, not the absence of particular objects only. Like every other organ, however, the fact of its excitement, and the degree of its excitement must be determined by circumstances. Thus *approval* in its general sense is the excitant of Approbativeness, but the approval of some persons is immeasurably more exciting than the approval of others; the approval of some may give no pleasure at all, or may even give pain. As we have seen in the above illustration of sound exciting Approbativeness, so Concentrativeness must always be excited through the medium of other organs. Its excitement, therefore, must first depend upon the particular combinations presented by these, and, in the second place, the intensity of the excitement must bear a relation to the vividness of their action. Thus objects that are indifferent to us, in other words, that produce little or no excitement in many of the organs that act upon this one, must, of course, produce little or no excitement in it, and *vice versa*. Thus, speaking generally, whatever powerfully excites the mind, whether painfully or pleasurably, has a tendency to remain *continuously* before it if this organ be large. It is often difficult and painful to withdraw the attention from even the most distressing scenes or thoughts. Where the organ is small, these exciting thoughts come before the mind, at intervals, fitfully.

Of course, there are organs that modify, and, in particular cases, restrain the action of this organ. This is indispensable, and the like takes place in regard to all organs. There are some objects to which we have a natural antipathy, or in regard to which antipathy is more powerful than sympathy, from these, of course, we are repelled. Nature has made abundant arrangements for meeting such cases, how we know not, but we find the action of all organs from time to time checked by those of others, though mutual harmony is the usual rule.

Again: there are gradations in *approval* from the faintest expression of approbation to the most complete and intense. So with all other organs. Philoprogenitiveness is but faintly excited by the presence of young people approaching maturity; the excitement increases with the youth and helplessness of the individual, and reaches its acme with absolute infancy. In like manner, there should be analagous gradations in the excitement of Concentrativeness. When the removal of an interesting object is but temporary, the pain may be trifling, or, if the time be very short, there may be no inconvenience at all, es-

pecially when the separation is necessary for the gratification of other desires. But in proportion as the absence is to be long continued, and in proportion to our apprehension of intervening accidents rendering it perpetual, so does the pain increase, till it reaches its highest point when the separation is to be absolute—for ever.

It may be said that all organs give the desire of being *with* the objects which excite them, and are pained at their removal. Facts prove the reverse. Let two persons, equally fond of the arts, in one of whom this organ is large and in the other small, spend some time in a gallery of paintings, and be delighted with what they see. Let them know, that when they leave they part with these objects for ever. The one will hardly be able to drag himself away, and when he does so, it will be with a pang proportionate to his previous delight. The other will scarcely be conscious of any pain. It is the same with all parting. When this organ is absolutely small, no matter what the other organization, the dearest objects are parted with with comparatively little pain. All persons feel the pain of parting, because all possess this organ, and even small organs are capable of occasionally displaying vivid though not powerful manifestations, as we see in the case of the intellectual organs, Amativeness, Alimentiveness, &c. &c., but when we compare the pain felt by two individuals greatly differing in respect to this organ, but equally well constituted otherwise, in parting from beloved objects, the difference is immense. With the one the pain of parting is the most bitter, the most overwhelming of human sufferings. The idea of leaving a beloved object for ever, of being for ever cut off from all intercommunication, from all interknowledge, is so dreadful, that the whole mind is for the time entirely prostrated. For ourselves, we know nothing comparable to it, and if Providence had not interposed a variety of modifying influences to check its force and diminish the duration of the excitement, this organ would render life unendurable. For the truth of this description we appeal on the one hand to those who have this organ large, and on the other to those in whose head it is small. If they have travelled much, the consciousness of its effects will be the more vivid. The traveller with large Concentrativeness, in passing through agreeable scenes, finds the words, "I wish I could remain here," perpetually rising to his mind. And in fixing himself ultimately in one place, though his affections gradually centre upon it, he still feels that he makes a sacrifice of many other favorites, and he is pleased at the idea of revisiting them at some future time.

This is the painful view of this organ; it has also its pleasurable aspect. The delight of rejoining beloved objects is almost an equivalent to the pain of parting. This feeling is a leading element in all the pleasures of love and friendship. But we must stop for the present. So many ideas in connection with this organ have presented themselves in the course of our remarks, that we find we must devote another article to it.

[Our space on this occasion does not allow us to make more than one or two remarks on the following communication. There is a tone of asperity running through portions of it, wholly uncalled for by anything we have said. Such expressions as "turning up the white of the eyes," &c. &c. are uncourteous and unprovoked; and we must request that Mr. Deseret, in his future communications, will content himself with attacking our opinions, without troubling himself with unnecessary personalities. We see nothing in his letter to interfere with our arguments. We shall meet his reasonings as soon as our other arrangements will permit.]—Ed.

CORRESPONDENCE.

To the Editor of the People's Phrenological Journal.

Sir,—I have examined with attention your objections to my theory as to the function of the organ called Language, and they appear to be twofold in so far as I can collect them from your observations. They resolve themselves into—

1st. That there is a vagueness and want of rigorous analysis in the function which I attribute to the organ of Language, and

2nd. That I invest the organ with complex functions. In fact your objections appear to me to resolve themselves into one, viz.- That a simple and elementary principle of mind does not run through the whole of my statements and illustrations, and consequently the function indicated by me as belonging to the organ called Language, must be metaphysically untrue. I shall, therefore, first examine how far your observations with relation to my theory are correct both with reference to my general statements, and likewise as to details; and then take the liberty in my turn of examining the nature of the theory in which you appear to believe and apply to it the test of strict metaphysical analysis.

The first proposition embracing all the others deduced by me from the details given is, "That the organ called Language possesses the function of imparting outwardly the natural expression

of the various faculties with which we are endowed, and likewise of recognising this expression in others." Your answer to this is by putting the question if it is possible that you understand my meaning aright, and adding a variety of cases as resulting from my statements, and which would certainly all follow if you could find an individual entirely destitute of the organ of Language as you suppose. An individual without the organ altogether would according to the view I have stated be a decided idiot and not susceptible of external manifestation of any kind, nor of being moved or influenced by such manifestations on the part of others. I am not at all astonished at the wonder you express when I consider how totally different the theory of Language is which you entertain. You are struck with the difference and express your astonishment instinctively. If Mr. George Combe, in his constitution of man, had told a boy, who had injured himself by incautiously applying a lighted match to a large quantity of gunpowder, that he had violated the natural and organic laws; that he did not understand the relation of cause and effect, the boy would of course stare and ask what the man meant by uttering such nonsense. You do so as instinctively when a theory is propounded to you which does not appear to square with your previous views. But the question is not whether it squares with your opinions or those of others, but whether it tallies and harmonises with the laws of the human mind.

I felt no ambition indeed to array in a metaphysical form the simple truth indicated in the position stated above, but finding that it is confounded and mixed up with mental operations, to which it merely stands in a certain relation, it becomes necessary to point out more in detail its elementary function, and the nature and extent of its connection with the other faculties referred to. You maintain then that my positions are vague and incorrect, "and cannot receive a moment's tolerance when submitted to the test of rigorous analysis." We shall, therefore, examine the general position first, for that you have not examined at all, unless you term the raising of your hands at it in the form of a point of exclamation, constitute such examination, or putting a few questions which I have already answered, on the supposition implied in them being taken for granted.

According to my first position then, the organ called Language, takes cognizance of a class of relations, viz.—the relations of sign, the relations between our perceptions, emotions, and reflections, and their external manifestation. To maintain that this simple elementary relation is complex, or embraces, as you state, various functions, appears to me quite unintelligible. It is as simple as the relations perceived by the organs of Time, Place, Causality, or Comparison. It embraces in its range of function no more phenomena than the two last mentioned faculties, and if it had embraced fewer, this would have formed *prima facie* evidence against its being an elementary principle. Let us take the instance of comparison as an illustration. By means of comparison we compare all the perceptions, emotions, and reflections arising from our complex nature, and likewise the outward signs or manifestations of these. Are we not enabled in the same way, by means of the function which I have attributed to language, to express outwardly the manifestations or signs of the various perceptions, thoughts, and emotions which we entertain. The relation of sign does not consist in the different forms, &c. which go to make up the various external manifestations of our inward nature, but constitutes the mere relation which blends these into one expression or action outwardly, in the same way that the relation of resemblance is distinct from the elements of perception, thought, or emotion compared. Thus it appears that the function which I have attributed to the organ called Language, is only co-extensive with the other faculties of relative perception. It simply takes cognizance of the relation of sign or manifestation between the internal and external in the same manner that Causality or Comparison takes cognizance of their respective relations. We compare every class of perceptions, emotions, and relations, or perceive the relation of cause and effect among them; but it would be absurd to mix up metaphysically the perceptions, emotions, or relations compared with the faculty of Comparison; or in the case of Causality with that of cause and effect, yet this is what you endeavour to do in summing up the evidence against my theory. I never attributed to the organ of Language the perception or memory of forms, &c. but simply of the relation, by means of which we are enabled to manifest outwardly the whole perceptions, emotions, and relations of our complex being, and whether this was accomplished by means of form, size, weight, colour, time, place, causality, comparison, &c. would be immaterial to the question for the faculty which connected these inward perceptions outwardly with the external world, was itself a relation blending and harmonising them in one distinct and independent manifestation.

Thus it appears, therefore, that what seemed to you vagueness and a position "which could not be tolerated when submitted to a rigorous analysis," is only in harmony and accordance with the nature of the other established intellectual faculties. That if this organ had been less extensive in its operations it would have formed *prima facie* evidence that it was not a distinct faculty of the mind, and that the circumstance of its bearing a relation to all the other powers instead of invalidating its character only establishes it. This is the position then which you term *a priori* a fallacy, and which you say facts cannot prove. The position has been shewn to be sufficiently simple in itself, and, at the same time, comprehensive in its relations. It is certainly singular that facts cannot prove so simple a position, particularly when it appears to be metaphysically correct, but you will find upon examining your own consciousness, the real cause to be that the theory does not tally with your preconceived notions, and you cannot consequently admit it easily among your beliefs.

I am aware that the preceding analysis embraces an infinitely larger range of facts than what are embodied in the illustrations of my paper, for it comprehends the outward manifestation of every perception, emotion, or relation which arises in the mind. But the fact is, that I only stated the illustrations as proofs of my theory as limited to the various orders of persons spoken of. I observed that the different classes of persons referred to, all indicated the power in a high degree attributed to the organ of Language, and accordingly deduced from this the generalised function which I have stated to belong to it.

It is vain to reply to this view of the enquiry that it follows from it, that without the organ of Language man could do nothing, that with all the faculties of propensity, sentiment, and intellect, with the exception of language, he would be but a staring idiot. The conclusion is quite philosophical and correct. But you would rather be in a worse situation than a better by the statement for the same objection would apply to the functions at present attributed to all the faculties of relative perception. Divest a man for example entirely of Causality or Comparison, and let him possess all the other faculties of the mind in full development, and you have an idiot likewise. This form of objection, therefore, instead of being hostile, is favourable to the view stated by me. It only proves that the organ of Language is in *pari casu* with the other intellectual faculties, and illustrates the universality of its function, and its resemblance in this respect to the other organs of intellect which originate our knowledge of relations. It will not do, therefore, to turn up the white of your eyes with wonder, in the form of points of exclamation, but you must meet fairly the simple analysis which I have presented in these observations.

Having taken then, in a general way, an analytical view of the function of the organ called Language, there can be no harm in looking at it in its more synthetical form. and of observing the diversified aspects in which it presents itself to the mind, and the harmony of its synthesis with the simple function assigned to it in the above statement. Let us suppose a case then illustrative of these views in their broadest aspect. Sir Christopher Wren, in the year 1664, say, conceived the plan for rebuilding St. Paul's Cathedral. The real genuine ideas lie deeply embedded in his intellectual nature, not known to any one else, but quite familiar to his own spiritual being (to speak figuratively). But being anxious to learn what others, cunning in the matter of architecture might say of his design, he writes out and publishes in the English language an account of it, giving a detailed statement of all particulars, and circulates it among the learned in this class of subjects throughout England. But no one thinks proper to whisper back to him a syllable concerning it, which he takes for a sign that no one in England is able to recognise in the description the plan that he has made out in his own mind. He next translates his description into Latin and circulates it among the learned throughout the world, and after waiting many months no remarks return to him, which he still, bold spi rit persists in thinking is not the defect of his plan, but probably in his mode of describing it in, printed language. He is now quite puzzled and does not know well what to do till he bethinks himself of constructing a St. Paul's upon a small scale, and of sending this for exhibition among the learned in the different cities throughout Europe. He constructs his model, and after carefully comparing it with his conception sends it into the world. It is exhibited first in London, next at Paris, then at Rome, and so forth; and remarks by the learned, pour in upon him from all quarters. He has at last found a language by which his thoughts are rendered intelligible to others; and it is neither English nor Latin, nor the language of any particular country, but that of the human race, viz.—the actual outward manifestation of the conception of his own mind. It is not the inward conception of the mind itself, for it remains there for ever, but it is the outward semblance of it by which he renders his thoughts, design, or what you may please to call it intelligible to the whole world. The language of England and ancient Rome availed him nothing in the matter, and he had to fall back upon the language of a naked savage for the communication of his idea to the rest of mankind. Let us sift a little farther into the reason of this apparently singular enigma. We, in England, term that fine structure, erected under the direction of Sir Christopher Wren, "St. Paul's Cathedral." It is not the inward thought or design of Sir Christopher which we call so, for nobody yet knew or understood that, so long as it was safely locked up in Sir Christopher's brain. It is the outward development of what was so confined that we term "St. Paul's Cathedral." But these few crooked hieroglyphical forms themselves bear no relation or resemblance to that complicated structure which would require something like the lifetime of a practised architect thoroughly to understand. These crooked forms are but the veriest short-hand mode on the part of the mind of indicating, as by a sort of finger-post, where to go and see and examine the real outward sign of Sir Christopher's inward conception. The real sign of Sir Christopher's thought, indeed, exists nowhere excepting in St. Paul's Churchyard, London. Here is the only real sign of it, to Sir Christopher himself, to his friends, the philosophers, and to the wandering savage. It is the only class of perceptions in nature which signify or really indicate Sir Christopher's thought. Turn this view in your mind how you may, you will find its longitude and latitude to be pretty much where I have fixed them.

But you may answer, that there are more than two thousand words or signs used by Sir Christopher to convey his meaning to the learned, and that the term, "Saint Paul's Cathedral," was a mere finger-post to these. But this would again only be a finger-post to two thousand

finger-posts, which would only be increasing the difficulty upon you. Indeed, it was in this way that the learned were unable to carry about in their heads so many idle words or signs, which to them meant or suggested nothing, until they beheld the real symbol of Sir Christopher's thought itself rise before them. It was then, and then only, that his crooked hieroglyphics came to be understood by them in a degree. Indeed, it was not the printed words that were understood, but the real existing symbol of his inward thought as he had unfolded it to the external sense in his model. The printed words were only used by him to point out this in a sort of fashion, and the only real symbol of his inward thought pointed at by them was the outward manifestation of it in the model of the building we term "St. Paul's Cathedral." Thus, every perception, emotion, or relation of our complex being has its outward symbol, by which its inward existence is to be recognized. Each of these must have its existence in the mind before it can be symbolised or manifested outwardly. After it has existed inwardly, its outward manifestation follows, which, in the case of third persons, is the only sign to us of its inward formation. This outward symbolism, therefore, is the only real language extant. It is the outward manifestation of something that arises in the mind within, and constitutes the only intelligible language of its state of being. If the organ of Language or Sign does not take cognisance of the relation between the internal feeling or other element of mind and its outward symbolism or manifestation, it can have no function connected with our mental operations to perform, for there is no other common language extant among mankind. Outward manifestation, action, or conduct on the part of others, therefore, constitutes the only language which we are capable of understanding. We may describe it in any short-hand method we choose for our own convenience, but our descriptions point to the real language itself, which is the manifestation referred to. The organ of Language will be large, therefore, in all persons possessing or evincing the power of manifesting with facility their internal emotions or conceptions outwardly, and with the faculties of intellect and feeling highly developed, gives great power and combination of action. It is that power of the mind which you strangely attribute to the motor nerves, which combines and unites in one form or tissue, as it were, all the perceptions, emotions, and elements of reflection going to make up their outward manifestation, and gives to them outwardly "a local habitation" by which the whole world can recognise their meaning. It is not a word, or combination of sounds, or crooked forms, which nobody but the English nation are taught to comprehend, but it is the relation between what is internal and the action or external symbol itself, to which even the crooked hieroglyphics of the English point, and which the savage understands as well as the philosopher.

You yourself, even, very shrewdly observe in your conclusion, after you imagine you have thoroughly exposed all my absurdities, that "imitators, artists, poets, and orators of the highest order, have a great many traits of character in common. These traits, in high manifestation, are the preogatives of certain races. Most, if not all, these races have prominent eyes"—you here admit that the organ is in high development in imitators, artists, poets, and orators of the highest order—nay, you go farther, you admit it is the preogative "of certain races," and yet when one would attempt to account for all this by pointing out the simple metaphysical element upon which your own very excellent observations depended, you turn round upon him, and would overwhelm him with such epithets as "absurd," "points of exclamation," &c. Look around you again, and ponder well, and see whether not only those you have honestly mentioned, but all great men distinguished for actions that have told upon the destinies of their fellow creatures, have not likewise prominent eyes. I do not mean those who may have been dubbed field-marshalls, generals, admirals, &c., by an inclination of the head of majesty; but only those who have manifested and proved outwardly that they were genuine, true field-marshalls, generals, admirals, &c. Such was Oliver Cromwell, Marlborough, Napoleon Buonaparte, Wellington, and numerous others. The works of Oliver Cromwell and Napoleon Buonaparte are not bound up and lying snugly in your library or mine; but they exist or have existed elsewhere, and I pity the man who cannot read and understand every word of them. These works were but the outward manifestation, signs, language, or what you please, of certain inward thoughts and feelings that could not be otherwise made manifest. These outward signs or symbols of thought and feeling do not and cannot exist in any history of France and England, for we only find there a few straggling finger-posts pointing backwards in their direction.

Let us see, then, how this theory bears upon your analysis of my facts and illustrations. You set what you call a portrait-painter* down before a triangle to paint a portrait of it, and you say that you "presume his organs of Form, Size, Number, Locality, and some few others, will enable him to accomplish this easily." You are here demanding too much from these faculties. These organs will only enable him to perceive the various qualities of the triangle, but the painting or drawing of the portrait is a very different matter. The faculties just referred to, certainly perceive, or take cognisance of the

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* You suppose your portrait-painter does not use his organ of Language, which is the same to the argument as to suppose that he is destitute of the faculty. I do not believe that a human being could live without the organ of Language. All the idiots I have observed, have it large, which is evidently a wise provision of nature, to enable them to give outward manifestation to the feeble impulses, with which they are endowed, and to fit them for the more easy recognition of the manifestations of others.

respective elements which constitute a triangle, but they will not of themselves, enable the portrait-painter or any one else to reproduce them outwardly. They are only so many inward perceptions of the mind. There they are, and may remain fixed and indelible for many years, but the faculties which perceived them, cannot by any effort of their own reproduce outwardly the inward impressions respectively made upon them; and in this state of things, how will your portrait-painter unfold outwardly his triangle. Imitation can in this case, give him no additional power, for it simply originates the class of *desires* to imitate. In fact, your portrait-painter without the faculty called Language above described would be unable to connect the internal with the external, and with all the elements of mind with the exception of Language, would be nothing above an idiot and incapable of drawing or painting anything whatever. I presume you see that in such hands, your sphere, castle, landscape, and human being, could not meet with a better fate than your unfortunate triangle.

But let us suppose (as I had done) that your artist was only somewhat deficient in the organ called Language, and we shall set him down to his easel and let him commence work at your triangle. He has little difficulty in painting a decent portrait of it, and of satisfying you, his employer, because although his organ of Language is not full, yet it is sufficient to impart the outward expression of a class of perceptions, so simple. You next try him with a sphere, and as you justly observe, "solidity and perspective" are required to be unfolded here; and for that reason, I should say, the difficulty of outward expression is increased, and your artist, although well endowed with Imitation, (which merely originates a desire to imitate in this case outwardly what exists in the mind) will not be capable of imparting with equal effect the outward expression of the greater complication of perceptions and relations here supposed as a person more largely endowed with the organ called Language. He would in all likelihood fail in giving air and perspective to the sphere these being the more subtle and difficult portion of the expression of this object. In the same way, he would fail still more with relation to your castle. He would throw outwards most distinctly, the essentials—mere Form, Size, Colour, &c., but the relations would be less effectively expressed being more abstract, and not so susceptible of easy outward manifestation. Besides, there is a dash of sentiment about a castle, particularly if it is an old one;—it awakens Veneration, Wonder, Ideality, and without much power of outward expression, the precise points calculated to excite these, could not be caught nor unfolded. Your portrait of a human being, you will at once admit, increases the number of elements of feeling to be expressed;—indeed, in him they have become so numerous that it is impossible for them to struggle through a small or deficient organ of Language.

In the case of Mrs. Siddons, you fairly blink the question, for the organ of Language being very large, and the organs of her sentiments and reflective nature, being not more than rather full, combined with large Imitation, we have the whole phenomena in her development, to account for her manifestations according to my theory. You further say that I have generalized "my assertions in regard to these facts to an unwarrantable degree," but all I can say, is, that I have not stated the fiftieth part of the facts that I have observed. In the London Garrick Club, alone, there are the portraits of upwards of two hundred eminent actors and singers, and the least of them shews an ample development of the organ called Language, and most of them possess it characteristically large. It is in vain to talk of the temperaments and the secretive tendencies accounting for everything. Mr. George Combe published an account of the development of Robert Burns, and he informs us of the observing faculties being large, and the reflective full, and talks very soberly about his sentiments, and loudly enough about his propensities. He might have said as much, indeed, about the physical, moral and intellectual nature of the first coal-heaver he met on the pier of Leith. I felt that either Phrenology had not yet become a guage by which to measure the genius of Robert Burns, or that Mr. Combe was incompetent to the task; but I rejected the latter conclusion, for I knew he had written several excellent books on the subject. But, Mr. Combe, I had almost forgot to mention, gave Robert Burns' skull, or a cast from it, a very fine 'temperament' and herein consisted the difference between Robert Burns and the coal-heaver! I dare say there were many well-meaning people thought it all right! but there are folks in the world who can swallow anything. Excuse me, but I have always felt inclined to laugh when I have met with the word "temperament" ever since.

As to the organ of Secretiveness producing the manifestations attributed by me to that of Language, I think you will hardly persist in, after perusing the analytical view of Language, I have presented in these observations. Secretiveness appears to me, simply to originate a a class of desires producing the tendency to conceal, to disguise; and imparts the power of disguising our feelings, and even their natural manifesiations. It seems simply a controlling power, and can certainly impart no such manifestations as I have ascribed to the organ of Language, viz., outward expressionism or manifestation. You further remark that it would be strange, "If nature has left the whole social existence of man, and in a great measure, his individual existence also entirely dependent on a single organ, and that one of the least protected of the cerebral organs." Why, Mr. Editor, I must ask you, do you know its Locality?

You must be aware that it is protected by the the superciliary ridge, and the organs of simple perception, and has in front of it, the eye, the chief sentinel of the body with its fine ramification of nerves. It is more secure, in short, where it is, than it could be in any other part

of the cerebrum. Your other objection is already answered. But I dare say all I have said is in vain, for you and many other phrenologists are chained down to your present "belief" by the little word "Language," and neither you nor they, are at all astonished at it. Both indeed are in a worse plight than a certain character in Martin Chuzzlewit, who could not comprehend how he, a man of genius, could be detained in a country ale-house, by a piece of chalk.

But now, as to your own views. I can discover from a note in p. 118, that you entertain opinions similar to those of Mr. Combe, for you say with relation to the views of Dr. Spurzheim, "One would think that the powers which created artificial signs, would be the proper ones for perceiving and remembering them and judging of their relations." But language written or spoken is only a combination of small forms or sounds, the former of which is perceived by the organ of Form, and the latter, it is said by some, by the organ of Tune, but at all events, not by the organ of Language. Where is your perception of Language? It is in Form or Tune or some other faculty and not in the organ of Language. But further the organ of Language, does not perceive these forms, sounds, &c., as standing in any relation to the things indicated by them, for if it did, I should at once admit the correctness of your view. These curious antique hieroglyphic forms, however, bear no resemblance, and do not stand in any other natural relation whatever, to the things they are meant to signify. They neither resemble the perceptions, thoughts, or emotions, lying inwards, nor the actions, conduct, or works of men lying outwards. Mr. Combe himself admits this, for he says, "But mankind possess also the power of inventing and establishing *arbitrary* signs to express their feelings and conceptions. For example, the words *love*, *compassion*, and *anger* are mere conventional signs by which we in Britain agree to express these internal feelings; and there is no natural connexion between the signs and the things signified. The metaphysicians attribute this talent to association; but it is a peculiar power of association given by the faculty of Language only. Persons possessing much of this faculty, have a great natural power of inventing arbitrary signs, and of learning the use of them when invented by others." Where Mr. Combe says in the above passage, "but it is a peculiar power of association given by the faculty of Language only," he escapes from the difficulty he feels himself placed in of speaking as to its function. Neither here nor elsewhere does he attempt to give an account of the mental operation; nor even let a hint or sign fall from him by which you can infer the function he would attribute to it, but leaves us as you yourself do, "floating vaguely on the ocean of mental science, with charts little to be depended upon, and a compass whose laws are but imperfectly ascertained."

In the course of these observations, then, I have shewn you—1st, that the function I attribute to the organ called Language originates a class of relations—viz., the relation between the perceptions, emotions, or reflections which lie inward, and the actual manifestations of these, which lie outward; or in other words, the relation between our spiritual being, as it has been termed, and the external world, the nerves of common and special sensation and motion constituting the mere media of communication. 2nd, That this faculty is simple and elementary, and co-extensive in its operations with the other faculties of relative perception. 3rd, That there are only two classes of phenomena in nature—the internal and external, the latter forming the only indices, signs, symbols, manifestations, or what you may please to call them of the former, that exist in the universe. And I have only to add, 4thly, (for your space will not permit me to do more), that artificial language or arbitrary signs (which is nothing but so many forms, sounds, &c., perceived inwardly by the organs of Form, &c.) is originated by these being thrown outwardly for the purpose of imitating the real symbols or manifestations of the various faculties of our complex being, in order to save man the inconvenience, or rather, if I may use the phrase, the impossibility of carrying about with him all the genuine original signs or manifestations of his perceptions, emotions, and reflections.

In these observations, then, I have attributed only one simple elementary function to the organ called Language, viz., the relation between the internal and external, *et vice versa*, imparting and suggesting to us, a knowledge of the existence of a material world as it were beyond us, and like every other similar faculty, giving rise to a range of relation as universal as any other of the mind's operations, without which, indeed, we could not exist for one instant of time, or, if it were possible to do so, with all the faculties of propensity, sentiment, and intellect, we could only be in a state of frightful idiocy. The internal form but signs of the external, *et vice versa*, and this faculty takes cognisance of the relation between them. When large, it gives, as I have stated, a facility of external manifestation to the extent of the measure of power of the other faculties, but no further. This isolated organ, therefore, may be as large in the head of an idiot, as in that of a man of genius,—and if it were not so, it could not be regarded as a distinct faculty of the human mind. Arbitrary Language, excepting in so far as it consists of natural sounds expressive of our various impulses consists of forms or combinations of sound invented by us in imitation of this class of natural perceptions, but to evolve and illustrate fully the connection between them, would require more space than you can well spare, even in several of your numbers. I think I have analysed the function of the organ, and presented it in its simple metaphysical aspect according to my own apprehension of it. The view stated, I believe to be quite new both in metaphysics and Phrenology, and I intend developing it in a more enlarged form but I have indicated above the direction in nature, where you may go and test its accuracy, and if I am in error, I must just bear

all the obloquy which is sometimes justly and sometimes unjustly heaped upon a false prophet.

I am sorry to think that I have encroached so largely upon your interesting and talented periodical, and have to thank you for the liberal privilege of defending my views in its columns. I have likewise to thank you for the pains you have bestowed in reviewing my humble attempt to furnish an intelligible theory of the function of this organ. Your remarks have suggested much striking illustration which had not previously occurred to me, and which will be highly useful in the further development of my views. I entertain various other opinions, particularly on the subject of sympathy, mesmerism, and Bishop Berkeley's argument against the existence of a material world, connected with the inquiry, but these must be left till a future opportunity.

I am, Sir,
Your's faithfully,
PHINEAS DESERET.

London, 24, *Calthorpe Street*,
6th January, 1844.

PRESTON'S PERFECT CRANIOMETER.

To the Editor of the People's Phrenological Journal.

SIR,—In my last communication I only gave a rough explanation of the principles of my improved Craniometer, and on the subject of fastening the instrument to the head, in particular, my directions may be found imperfect, from which consideration I send the following method, and if this is not approved, some other person may point out a better. Instead of, or along with, what I said before, pass a screw through the brass circle over the bridge of the nose, at ninety degrees distance from the meatus, with a piece of brass in the form of a fork to fit the nose, covered with soft leather, and fastened to the end of the screw in the manner of a swivel; another screw in the pole of the neck below the organ of Amativeness, with a button-like head covered with soft leather, fastened to the screw in the swivel form; another screw of the same form below each organ of Number, and another below each organ of Combativeness, all these six screws being about four inches long, to make the instrument answer very small heads, and having round button-like heads outwards, nippered at the edge: by these, I believe the instrument may be fastened on the head perfectly, whether the head be large or small.

The plane of the moveable semicircle must pass through the centre of the pivots on which it turns, and two double slides, after the manner of Mr. Jones's instrument, but so constructed as to hinder any circular motion on its own centre, by a part turning under the moveable semicircle on which the measuring slide has its motion up and down, one of these on each side of the head, the degrees on the moveable semicircle had better be marked on the outer rim, not on its face, and the degrees in the circular arch should be marked on each face, but the slides must not be moveable from one face of the moveable semicircle to the other as Mr. Jones intimates, but instead of that the divisions for parts of inches must be marked on both sides of the measuring slide, which must be long enough to answer small heads, for the shifting from one plane to the other would make the notation incorrect: the degrees on the circular arch from the back of the head to the front, may be called longitude, making the first meridian to pass through the tentorium, and the degrees on the moveable semicircle, latitude, if counted down the equator or circular arch, or meatus distance if counted from the meatus: by this means any point of the cranium may be readily indicated, clear to the comprehension of all phrenologists, and I believe the operation may be performed with greater despatch than by Mr. Jones's instrument, and evidently more accurately.

As an example, we may suppose one of Mr. Atkinson's new organs to be in longitude five degrees below the tentorium, and forty-five degrees latitude, or forty-five degrees meatus distance: the distance from the centre in inches I have not mentioned, as it is only supposition.

On the subject of the organs of Concentrativeness and Inhabitiveness, take the organization of my own head as a fact in point—Philoprogenitiveness very large, Concentrativeness adjoining to Philoprogenitiveness large, from which as it proceeds upwards, it diminishes rapidly to the organ of Self-Esteem, hence the upper part of No. 3 is small, and the fact connected with this, is, that I never cared for one place more than another, and what you know of my writings proves that I can concentrate my thoughts: my head is here for the inspection of any phrenologist who thinks the subject worth enquiring into.

Mr. Jones has offered to send you a model, that you may judge of the estimability of his superior invention, but I think if the principle had been self-evident, there would have been no occasion for that; and, as I think the principles of my instrument are self-evident, and as I am doubtful whether I could get the instrument made in Oldham with sufficient accuracy, it would be more advisable to have one made in London, for a bad instrument would be no proof of good principles, hence, I should wish to reverse Mr. Jones's plan, viz., let some of the gentlemen of London get an instrument made with accuracy, and send it to me, and I will test it and send the result for publication; at the same time they may test it, and publish their results. By this instrument, the development of any brain may he recorded, and, at a future period, the same brain may be examined and recorded, and the developments compared, which will be more correct than taking casts, not considering the fragility of a bust, and the danger of being destroyed, which would not be so likely on paper, and it may be objected to, taking casts not being sufficiently accurate in all cases, for, in my own development, weight, size, and order, are large, but colour is small, and in looking at my

eye-brows they cannot be observed, but feeling with the finger, the depression of Colour is very plain. This proves that in this instance, taking a cast would not be correct, for it would not shew the deficiency of colour.

Your's, very respectfully,
EDWARD PRESTON.

Oldham, December 16th, 1843.

[Mr. Preston further states that his circumstances do not permit him to go to the expense of having such an instrument constructed, and he earnestly hopes that some benevolent phrenologist may be induced to take the matter up, for the interests of science. We have not yet been able to give Mr. Preston's plan a sufficiently minute attention to entitle us to pronounce an opinion upon its merits, but we shall not neglect doing so. We have, however, been greatly amused by his idea of taking the latitude and longitude of an organ. It is a very good idea indeed. We would especially recommend it to Mr. Spencer Hall and the phreno-mesmerists, of his school, as the only possible mode of describing accurately the situations of their numberless and minute organs. We would also recommend the introduction of other astronomical terms as likely to be very useful. For instance, in speaking of the organs of "Flying," and the "Love of Pets," their situations might be indicated something after this manner—"Organ of Flying, *gamma* Localitatis, 73 deg. 44 min. 59 sec. front latitude, 24 deg. 39 min. 14 sec. longitude. Love of Pets, *alpha* in the constellation Philoprogenitiveness, back latitude so and so, longitude so and so, &c." By such means, we shall have complete accuracy.]—ED.

To the Editor of the People's Phrenological Journal.

SIR,—It is with considerable reluctance that I again venture to occupy a portion of your very valuable columns, lest it should be to the exclusion of more useful matter; but for the sake of truth and a right understanding, I am induced to pen the following remarks in reference to your notes on my last letter, in which I shall endeavour to be as brief as possible. First, in reference to the process of argumentation as laid down by yourself, I would just observe, that there is a very necessary distinction to be made between the process of argumentation passing on in our minds, and by which we arrive at our own individual conclusions—and the one by which we endeavour to bring others to the same view of a question as ourselves. That such a distinction really and truly exists, I think is made evident from the fact, that some given proposition may be self-evident to our own minds—we embrace it as it were instinctively and at once, without being at all conscious of the least reasoning process passing in our own minds—when, to make the proposition clear to the minds of others, it will or may require the most laborious process of reasoning or argumentation. But as this matter does not involve the validity of any very valuable fact, I shall pass on to the next, only observing, that I humbly conceive that you have spoken in reference to the former process, and I in reference to the latter. The next subject which I consider deserving of notice is the somewhat belligerent threat of bringing down your whole force against Phreno-mesmerism. As it is impossible at present even to guess at your intended mode of attack, or the points to be assaulted, it is equally impossible to prepare you a comfortable reception until the siege is laid, and the attack commenced. But, by way of caution, I would appeal to your better feelings, by reminding you that it requires no giant strength to crush an infant science; that the rude hand of the unskilful rustic may demolish, while it will require all the skill and care of the philosopher to foster a new-born science through its various stages of adolescence, until it shall have arrived to the vigour of maturer years. It is not from a consciousness of the weakness of the cause I advocate that I thus plead; but because I see that great talent may possibly be employed in crushing an infant truth. The next thing which has taken my attention, is the apparent discordance of the two following passages:—"Our objections apply to the nomenclature, to the organs, to the functions, and in fact, speaking generally, to everything belonging to them;" then, "Still we think Phreno-mesmeric experiments of the greatest interest and of great utility also." I frankly acknowledge, I feel no difficulty in believing that your opinions on mesmerism are more consistent with themselves than appears in these two passages, but how you will be able to conciliate these extracts I cannot easily conceive. My remarks in reference to the "late editor" appear not to be very clearly understood. I did not intend that he should have qualified his remarks in the manner stated by you; on the other hand, I consider him fully warranted in speaking in the most positive terms so far as those terms apply to the case under his observation. Neither did I intend that my remarks should be considered in any other light than as correcting generally a most prolific source of unprofitable disputation among mesmeric experimenters. That the "late editor" did not intend to dictate to others, or in the least to impeach their veracity, is too clear to admit of question; and, therefore, it would be nothing less than folly to say more in exonerating him from such a charge. Respecting Dr. Collyer's renunciation of his former anti-Phreno-mesmeric opinions--if (as you have stated) he "merely admits now that the organs are *sometimes* excited by mere contact," then, if I understand what is intended by the word "Phreno-mesmerism," he is as much a Phreno-mesmerist as I am myself. The number of instances ("times") in which the organs may be excited by contact depending entirely upon the number of that particular class of subjects which may happen to fall under his or my observation; therefore, the doctor with this admission is not one jot less a Phreno-mesmerist than what I am myself. In reference to your last note, in which you express yourself unable to "agree in condemning what is here termed an error," I should (but that I am again fearful of encroaching on your valuable space) reply at some length, as I deem it worthy of some notice on account of the great drag it has ever been to the whole of science. How very often do we find even the greatest minds mistaken, when they take reason instead of observation for their guide. How often are they led to grope in the dark in search of nature's hidden things, simply because they confine their search to where they consider she ought to have treasured up such and such a secret; therefore, the advantage of throwing off such an incumbrance is obvious, when by so doing a wider range of observation is opened to our view, and we are then free to follow nature wherever she may lead. That the human mind has within itself a tendency to methodise and

systematise I readily admit; and that the retention of knowledge is aided considerably thereby there can be no question. But if such a system as the harmonious grouping of the organs existed *de facto* in nature, it would be impossible in the very nature of things to invalidate such a system. But let any one with a large organ of Wit (whose function it is to show the difference of things) be induced to take up the opposite side of the question, and I will venture to say that this harmonious grouping would be turned to laughable account, the jarring incongruity of such a system would be made to stand out in bold relief—therefore it must be clear that such a system of grouping does not exist in nature, being no more than a supposition of the human mind. We should, therefore, take them just where we find them, knowing where to find those faculties already discovered, but not even presuming to predict where we should, or where we should not go in search for others. The concluding remarks I made in my last in reference to the "marriage organ" are not intended to be taken as the reasons why it is located where it is, but showing a little of what may be said in favour of its present locality; and had it been found anywhere else in the head, just as much might have been said—such is the inventive power of the human mind. Before concluding, just a word with your correspondent, Mr. Preston. If he will engage the world to stake their belief in mesmerism on his being cured of what is called "an incurable complaint," then may some mesmerist be induced to attempt his cure. But until mesmerism becomes a profession, or shall become incorporated with the present medical profession, Mr. P. has no right to expect amateur mesmerists to make so great a sacrifice of their time, as to undertake his cure exclusively for the benefit of the public, or in support of an infant science; much less can he expect such a thing from them merely for the sake of the honour which would redound to mesmerism from having effected his cure. Mr. P. surely must be as little acquainted with the very many eminent cures which have already been wrought on persons of every grade, some of distinction, by him whom we may, with great propriety, call "the great father of English mesmerists," as he is with the subject itself, or he would not speak thus depreciatingly, or so over-estimate the value of his cure to the world. With these explanations, I hope we may now prosecute our onward march into fresh territories, and there make new and still more astonishing discoveries in the pleasant fields of science. With the highest consideration, I subscribe myself,

Yours very respectfully,
ROBERT JONES.

Liverpool, December 21, 1843.

EXTRACTS.

WHO ARE THE CELTS, AND WHO ARE THE IRISH?

When our good neighbours, on the other side of the Channel, reproach the English with being Saxons, and boast of themselves as being Celts, they are evidently not aware that they are committing a blunder, which compliments their supposed opponents at a serious expense to their own *amor propria.*

So difficult is it to overcome the habit which originates in popular error, that established truth, if it be new, is long in finding admission, even amongst those who ought to be well-informed. Amidst the recent discoveries in history, nothing has been more clearly established than the distinction of races. The Goth bears no more affinity to the Celt than the cat does to the lion; yet we find the press, not only of the provinces, but of the metropolis, tacitly admitting that the Irish are a different people from ourselves, and arguing on that admission as a fact for legislative guidance. A correction of this blunder may help to diminish the evil tendency now acknowledged by Mr. O'Connell as likely to flow from the use of nick names, which want even the doubtful merit of being remotely appropriate.

If the reader bear with us for a few moments, we will explain this. From the nature of ancient history, the rules by which we can estimate the descent of nations are reduced, in the absence of authentic records, to very few. We can rely, perhaps, with certainty only on those sciences which treat of language, and the physical conformation of man. In the west of Europe we find two races of men and two languages—the one is Celtic, the other Gothic. With these only we concern ourselves. No people can be more unlike. The Goth is tall, athletic, and robust; has blue eyes, light or red hair, and ruddy cheeks; his courage is such as his personal attributes indicate, and his appearance is full of manly beauty, The Celt is the reverse of this; his stature is short, his person slender, well-formed, and possessed of great strength and activity; his eyes are black, his hair is of the same colour. In addition to this it has been observed that his skin is sallow, his lips thin, his cheek bones high, and his face sharp, his physiognomy, though wild and keen, is by no means disagreeable. Like themselves, their language is derived from opposite sources; but we are not, however, to infer from this that a language, and a people to whom it more immediately appertains, must exist together; for we sometimes find the Celtic, as in Ireland, spoken where the people are not Celts. In cases of sudden admixture of populations, violent or peaceable, the prevailing language will be that of the majority, because it is much easier for the few, however powerful, to acquire the language of the many, than for the many, however feeble, to submit to an irksome study for the mere convenience of the few. Coercion has been found unable to alter a great law of our nature. Thus when foreigners arrive at intervals, they invariably acquire the dialect of the country they invade, and in this way a whole people have disappeared, leaving their language as an enduring memorial behind them.

Catch a Highlander, a pure Celt, says Dr. M'Culloch, put a turban on his head, a shawl about his waist, and in the Minories he will be importuned to buy old clothes—in Arabia he will be accepted as a guide across the desert. If the reader is equally speculative, he may catch

an Irishman at our docks, or in the streets of Galway, and by the rule just laid down, he may determine which of the two great families of mankind he appertains to. If he has blue eyes, light or brown hair, he is a Saxon, for Saxon is but another name for Goth; if black eyes, &c., he is a Celt, or rather Kelt, as it is pronounced.

The next question, however, is a more important one. Does the physiological difference manifest itself in social conduct? For, if it does so manifest itself, it belongs to the science of politics. All history proves that it does. With the why or wherefore we have nothing to do; we are concerned only with facts.

The Celts are apparently an elder family; we find them, at the earliest period, in possession of Asia Minor, Palestine, Arabia, and nearly all of the south-western part of Europe. They are there yet, and they are now what they were three thousand years ago—neither better nor worse. They have always been, properly speaking, a civilised people to a certain extent; never a great people. Like the Chinese, they have ever continued stationary; with no desire of civil liberty, no capacity for advancement; the slaves of despots; poetical, but neither scientific nor philosophical. They never established a republic; never produced a Newton. When they adopt knowledge they corrupt it. On the other hand, the Goths are distinguished by two things—an aptitude for improvement, and an unsubdued love of political independence. Everything that dignifies humanity appertains to them. The civilization of Greece and Rome was theirs; they were the republicans of the middle ages, and they *are* the people of England. When they disappear from any place, slavery and degradation step in; and where they jostle the Celts, as in France and Spain, the struggle between a tendency to freedom and a tendency to despotism is eternal.

When the Irish seemed to glory in a Celtic appellation, were they aware of these facts? And the question for them to consider is, "are they Celts?" Fortunately, for their future prospects, they are not—they are like ourselves, Saxons. The most ancient records of Ireland describe a people of Gothic habits, of Gothic appearance, robust bodies, blue eyes, and light hair. These are still the personal attributes of the majority, a very small minority proving, in addition to an almost extinct language, that the original inhabitants were a peculiar Celtic people. All their chronicles, however confused, speak of the dispersion of the early race, and demonstrate that the heroes of old, the Firbolgas, the Clannabolg, &c., were Goths. Even the Saxon language was spoken by the great in the tenth century; at least the Saxon minstrels received tribute of Brian Boru! And the Gothic "skull" was the social cup which enlivened the feasts of O'Neill in the sixteenth century.

A little discussion would quickly silence the mischievous nonsense about Saxon and Celt.—*Liverpool Journal.*

[There is a great deal of truth in the above extract, but it is far from being minutely accurate. With its political bearings we have, of course, nothing to do in this place.]---Ed.

SOME NOTES UPON THE HEREDITARY TENDENCY TO MENTAL DISEASE.

By W. A. F. Browne, M.D.

Superintendent of the Chrichton Institution for the Insane.

(Continued from page 128.)

The examples of the appearance of apoplexy, epilepsy, and insanity in the same family, are exceedingly numerous. This liability to all or the greater part of the morbid actions of the nervous system, might have been predicated from what takes place in the lungs, glands, &c.; but it is somewhat difficult to perceive the means by which such a tendency is in any case confined to one affection, unless we adopt the opinion they where madness alone is transmitted, the encephalon proper, or some part of it, such as the great matter, is the seat of the imperfection,; and that when madness, epilepsy, and apoplexy are transmitted, the whole of the nervous system participates in the diseased condition, as well as the organs of circulation, motion, &c. The influence of education, pursuits and pleasures, in determining the particular aspect which nervous maladies shall assume, is generally well known: but if to the ordinary predisposing causes there be superadded a tendency to a long series of diseases, it need not surprise us to find the same individual affected according to the development of his body, his age, his occupations; labouring in infancy under fits which are referred, and in one sense correctly referred, to the irritation of dentition; in youth threatened with hydrocephalus; and if not struck down by apoplexy in manhood, left to linger for years as a drivel or a dotard. That there are protecting circumstances is equally clear; for the brother or sister of the person whose history has been traced, may enjoy throughout a long life uninterrupted bodily and mental health and vigour—either in virtue of a more robust original constitution, or in consequence of the adoption of more prudent precautionary measures, and of less exposure to the excitements, physical or moral, which lead to the explosion of the disease.

II. There may be hereditary taint from malformation of the brain; where at maturity such irregularities of conduct appear as the natural manifestations; or where imbecility occurs; or where age or circumstances press too heavily upon some weak or wounded part, and the whole fabric falls.

The transmission of particular forms of head is best shewn by reference to national characteristics, or even to the organization of the great divisions and varieties of the human race. We know idiocy to be connate, and to exist in several branches of the same family; that it is hereditary is likewise true, but examples are comparatively rare, as the marriage of individuals thus affected

can take place only where there exist neither legal nor prudential nor moral restraints, or where the necessities of caste or entail are truly exigent. Imbeciles, and those who are entrusted with liberty but with few of its privileges, and whose duties are as limited as their powers, often form alliances, and originate a race characterised by feebleness. The head is in such cases always below an average size. The descent of such a form of head is said to be found among the Sicilians and Portuguese of rank.

That there is a tendency to particular forms of madness in certain families, depending upon vicious conformation of the brain, is well established. This has been chiefly remarked in suicidal mania, perhaps because the act is so striking and horrible as to attract attention, because it outrages all our sympathies, or because the event stamps to the least observant the nature of the disease. Gall knew a family of seven, who one and all destroyed themselves. Falret mentions a son, a father, and an uncle, who had committed suicide; on the authority of another member of the family who had frequently resisted a disposition of the same kind. Individuals who carry with them this taint in its most intense degree, often exhibit peculiarities which might be held to be premonitions or stages of the approaching paroxysm of disease. They are manifestations of that excitability and unequal activity and energy which flow directly from the vicious conformation which is now under consideration, and which merge into disease whenever acted upon by the appropriate irritants. They mingle with every act and relation of life: as eccentricities they may gain an unenviable notoriety; as inequalities of temper and irregularities of conduct they embitter the springs of peace to all around; as wild and vague enthusiasm they may place the zealot among saints, or patriots, or traitors; as weaknesses of character they expose the possessor to the designs of every more energetic intellect: but they all tend towards disease; they all converge to that point where reason ceases to rule. It must not be imagined that all the odd or zealous are branded with this taint, or are all to be swallowed up in this common ruin; but where an insane parent is succeeded by an eccentric child, we are justified not only in concluding the presence of a hereditary taint, but in predicating the invasion of insanity under certain circumstances.

Hereditary taint proceeding from vicious conformation of the brain should likewise be viewed as affecting responsibility. If one man be more liable than another to such a suspension or disturbance of reason as to obscure his sense of right and wrong, and if he be most exposed to this suspension and disturbance at the very time, and by the very circumstances, and by the feelings which actuate him when he is tempted to commit violence or crime; and if it be shewn that in many cases, even where the taint may be said to be quiescent, there remain strong peculiarities, a fluctuation of purpose, an ill-regulated will, which are all calculated to interfere with correct judgment and conduct; such liability may surely be held to extenuate the culpability of any given act, if not to exonerate the individual altogether from the consequences. Juries do well if they compare the transaction with the previous conduct, with the natural and healthy manifestations, of the accused; but this is not doing enough. The investigation must be carried further back, and whenever madness is suspected or pleaded, it should comprehend the history of the race as well as of the individual. To acquit a man because he is the representative of a line of homicidal maniacs may appear sadly inconsistent with law; but to condemn and execute him because a diseased condition of the brain, transmitted to him with the frame and features of his parents, at certain times and under certain influences, impels him to imbrue his hands in blood, or cast firebrands into palaces or cathedrals, appears equally at variance with humanity. Such a heritage may be a sound reason for depriving the unfortunate possessor of liberty, but not of life; for prescribing a strait waistcoat, but not the scaffold. The soundness of these views appears to have been recognised in the recent trial of Oxford. In that proceeding the venerable expositors of our criminal code must have been somewhat astounded to hear medical men refer to the size and shape of the head as an indication and proof of insanity, and be obliged to entertain the principle, that if a man's father and grandfather have both been mad, there is a strong presumption that he will be of unsound mind likewise. The destruction of human life during a paroxysm of homicidal mania is regarded as an involuntary and irresponsible action; but what is here contended for amounts to this—that the mere tendency to commit such an infraction of law, when depending upon constitutional taint, should form a matter for grave consideration in all trials or discussions as to punishment; as such an element in the character, or acting upon it, must signally modify the influence of certain motives, the power of resistance to others, and even the perception of the consequences of any given act or course of conduct.

John Oxford, the grandfather of the regicide, was of intemperate habits, and was twice affected with furious mania, during which he destroyed every article or furniture within reach, pursued his brother-in-law armed with a spit, and gave way to the most uncontrollable violence. The first paroxysm occurred immediately before marriage. At all times, even when able to perform duty as a Greenwich pensioner, his conduct was strange and eccentric; he, even then, announcing himself as the Pope of Rome and St. Paul. He had three children—a daughter, who appears to have been of sound mind; a son, who was at one time insane; and the father of the culprit, whose mind was, from infancy, warped, wilful, and deranged, compounded of acute perceptive powers which procured and preserved for him a character for ability, and of diseased passions and propensities which should have consigned him to a madhouse. Alternately an industrious workman and an inveterate drunkard, an ardent lover and a domestic tyrant, he, about maturity

and the time of his marriage, became insane, and never perfectly recovered. He twice attempted to commit suicide, repeatedly assaulted and severely injured his wife, and recklessly burned, broke, and squandered his own property. During his wife's second pregnancy, this insane monster deprived her of food, wounded her, and terrified her by imitating the grimaces of a baboon in her presence. The offspring was an idiot, with features exactly resembling the grimaces its father had used. In her fourth pregnancy, his deportment was even more brutal. He persecuted her with gibberings and hideous distortions of his body as before, knocked her down, and fractured her head with a quart pot. The birth of Edward Oxford immediately followed this treatment. The regicide himself is described as imbecile, but partially educable, wayward, proud, destructive; and he, upon one occasion, seemed to labour under delusion, having declared that he was St. Paul. He was about eighteen years of age when he fired at the queen.

Here, then, is an uninterrupted descent of the same qualities through three generations. The original dispositions of the individuals differ little, the derangement is of the same character, although, as the stream runs onward, it seems to become darker and deeper; the development of the disease occurs at the same period of life, and the third member of the series is so complete a type of his ancestor as to reproduce even the very same form of delusion. Dr. Conolly "examined the prisoner's head, and it appeared so formed in the anterior part as to shew that the brain was not fully developed. There are persons so developed who are of unsound mind." Such evidence leaves little room for doubt that this defective development and diseased condition of the cerebral organization were transmitted.

III. There may be hereditary tendency to disease from the want of balance between parts of the brain. The man with large Cautiousness, Secretiveness, Wonder, and Veneration, and small Intellect, Firmness, and Combativeness, and who educates and ministers to the strong feelings thus pervading his character, runs great risk of the mania of fear and superstition. It has been laid down as a proposition, that hereditary predisposition is apt to produce madness, and the same kind of madness in different individuals at the same time of life. This is what might have been anticipated from the same type of head running through successive generations, and especially where, as is often the case, the taint appears to depend upon the predominance or imperfect development of particular groups of organs. There are, however, too many exceptions to such a rule, and too many sources of deviation in the supposed course of transmission, to permit such a proposition to be received as a true and rigid interpretation of nature. There may be only one or there may be both parents insane; they may be affected with different degrees and descriptions of insanity; the father may be eccentric, the mother epileptic; the one may have issued from a pure and vigorous stock, the other may be connected with a race of imbeciles; and thus all calculations as to the precise result must be rendered hazardous and doubtful. There are under my charge at this moment a father and a daughter who are both insane, but whose morbid feelings and delusions are in no respect assimilated. The father lives in constant fear of death, and has taken his last meal, according to his own account, three times a-day for the last two years; the daughter is a merry, garrulous, incoherent maniac; a younger daughter was formerly insane, and laboured under religious despondency. Jonathan Martin, who set fire to York Minster, died deranged; his son inherited the tendency to madness, but not to the monomania of incendiarism. The father gloried and rejoiced in his delusion, the son committed suicide in a fit of despondency and depression. Nor must the invasion of the disease at a particular period be regarded as inexplicable or wonderful, as the attack will be found to be contemporaneous with the exercise of those passions, or the occurrence of those events, which are most calculated to injure or destroy the equilibrium of the reasoning powers.

(*To be continued.*)

ANSWERS TO CORRESPONDENTS.

Mr. Lundin, A Subscriber, and our Portsea correspondent, will hear from us next week.

We have to acknowledge the receipt of Dr. Browne's very interesting and valuable Report of the Crichton Lunatic Asylum.

We had prepared for our present number some account of the extraordinary proceedings at Mr. Vernon's Mesmeric Lecture at Greenwich, but it has been crowded out. We shall say something on the subject next week.

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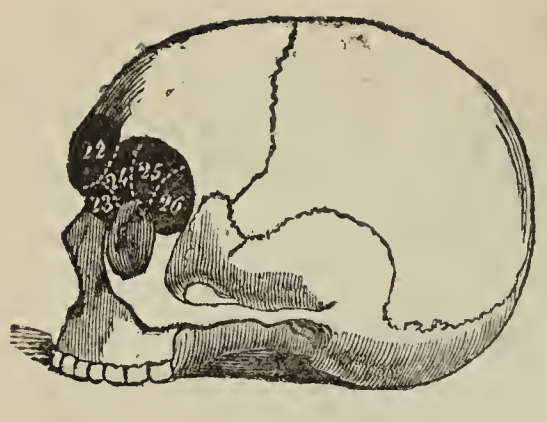
A COMPLETE SYSTEM OF PHRENOLOGY.

(*Continued*).

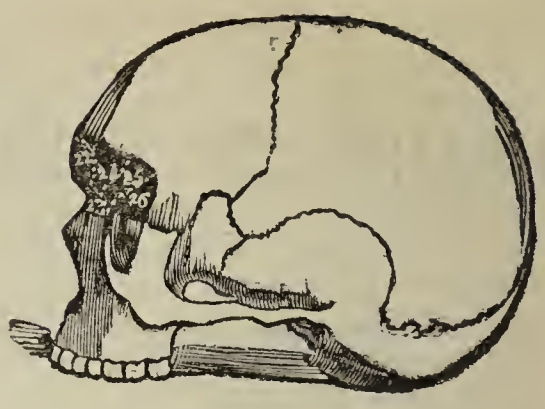
INTELLECTUAL FACULTIES.

THE intellectual powers of man are usually divided into three genera. The external senses, the observing, and the reflective faculties. We shall no where enter into any account of the external senses. By reference to our table of the classification of the faculties, p. 61, it will be seen we divide the intellectual faculties into four classes, the simple perceptive, the objecto relative, the reflective, and the expressive groups. The whole of these organs being situated in the forehead, around and above the eyes, they are necessarily of small size; this has been made an objection to the system, but the smallest of the perceptive faculties are considerably larger than many objects in nature and art, the properties and functions of which it is fully admitted can be discovered and estimated. It is of the utmost importance to be able to estimate correctly the size of this region of the brain. Many persons observing a broad or high forehead, are disappointed at not finding the individual possessing the same intellect; but there is another measure which must be applied as well as breadth and height, which is projection forward, or length of fibre in front of the zygomatic suture, or the projecting point of the cheek bone, a line drawn perpendicular from this point. Notice must be taken of the volume of brain in front of this line, and if it is most predominating in the region immediately above and around the eyes. the middle region, or the superior one of the forehead, taking particular care not to be deceived by the prominence of one region so as to infer deficiency in any other, which, but for the larger size of one group, would perhaps appear very fully developed. Many of the most remarkable men have been rather remarked as possessing an extreme length of intellectual region in advance of the line above described than for breadth, or any general expansion of the forehead. Napoleon Bonaparte, Canova, and Byron are illustrations, while by reference to the heads of many of the tribes of Peruvians and Africans, it will be seen that they have moderately high and broad foreheads, but if the one given be applied it will be immediately seen that the whole volume of brain in this region is comparatively small.



LARGE.

SIMPLE PERCEPTIVE GROUP.



SMALL.

INDIVIDUALITY.

This organ, No. 22, is situated between the eyebrows in the middle and lower part of the forehead. When large, there is great breadth and projection just above the root of the nose, between the eyebrows. It is large in Spurzheim, in Michael Angelo, and most celebrated artists and naturalists. The generally received function of this faculty is the perception of existences, that is, everything considered grammatically as a noun, as, a man, a horse, a ship, but it is not believed to take cognizance of the attributes, or individual peculiarities of bodies. This faculty gives a liking for details, and the capacity for producing and referring to the same; it is, therefore, essential to the successful study of the natural sciences, and is generally large in celebrated botanists, zoologists, &c., authors endowed with this faculty excel in narration. Defoe, Swift, Dickens, and Walter Scott, are instances. In Voltaire the organ is small, and he was notoriously a most incorrect writer in regard to mere existence, his history partakes more of the character of romances than mere details of facts.

Some individuals travel from one end of a kingdom, or town, to the other, and see positively nothing, they appear in a kind of reverie, although they often are not thinking, but from the inactivity of the observing powers are insensible to what is passing around them. A very correct description of the results of a large organ of Individuality is given by the talented author of the "Inheritance," and may be quoted as a powerful contrast to the character of an individual possessing small individuality, and, at the same time, as indicating the natural language and expression of large individuality, combined with an active temperament and moderate reflecting powers. "People who make use of their eyes," the author says, "have often much to see even between two doors; and in her progress from the hall to the drawing-room, Miss Pratt met with much to attract her attention. True, all the objects were perfectly familiar to her; but a real *looker*, like a great genius, is never at a loss for a subject; things are better or worse since they saw them last; or if the things themselves should happen to be the same, they have seen other things better or worse, and can, therefore, either approve, or disapprove of them. Miss Pratt's head then turned from side to side as she went along, and a thousand observations and criticisms about stair carpets, patent lamps, hall chair, slab tables, &c. &c. passed through her crowded brain." "Miss Pratt appeared to be a person from whom nothing could be hid. Her eyes were not, by any means, fine eyes, they were not sparkling eyes, they were not soft eyes, they were not penetrating eyes, neither were they restless eyes, nor rolling eyes, nor squinting eyes, nor prominent eyes; but they were active, brisk, busy, vigilant, immovable eyes, that looked as if they could not be surprised at anything, not even by sleep. They never looked angry, nor joyous, nor perturbed, nor melancholy, nor heavy; but morning, noon, and night they shone the same, and conveyed the same impression to the beholder, namely—that they were eyes that had a look, not like the look of Sterne's "Monk," beyond this world, *but a look into all things on the face of this earth.*"

Many important discoveries have been made by individuals who have large perceptive faculties, but who are deficient in reflective powers, and combined with an active temperament, this organ much aids the understanding of the details of business. Many a tradesman, and professional man, owes his success more to his readiness in applying to details and referring to precedents than he does to any real intellectual superiority over his fellows. These are clever men, and if backed by animal powers, and favoured by circumstances, it is quite extraordinary what a great deal such men will do in a little way.

This organ is more developed in the French than the English or Scotch, it is larger in the latter than the Germans. It is generally larger in males than females. In children it is relatively fully developed at a very early age. This is a natural indication of the proper way to begin the intellectual education of a child by presenting to it objects, not mere arbitrary signs to represent them. When the organ is small the tendency is to abstract reasoning. It was very large in Cuvier. Animals no doubt possess this faculty in a very high degree, their observation and memory of objects is in many instances remarkable. There are very many interesting questions to be discussed in regard to this faculty, some regarding it as the power which leads to personifying ideas and sentiments, others, that its principal use is induction.

(*To be continued.*)

ON THE INFLUENCE OF "EDUCATION AND CIRCUMSTANCES," IN MODIFYING CHARACTER AND ORGANIZATION.

(Continued from page 69.)

By the Editor.

We have next to consider the effects of exercise in reference to the sense of touch.* All the previous argument is completely applicable in the present instance. We find this sense arriving very soon at perfection. Not the least superiority is noticed in the adult over the child. After a half century or more of the most constant exercise, not an iota of improvement can be detected. No one would have ever thought of maintaining the possibility of improvement, had the accident of blindness never occurred among men. And yet, when this accident does occur, two or three months may display a vast increase in the *apparent* powers of this sense. How is this? How is it that so long a period of constant exercise produces no increase whatever, while so short a period produces so much? Rigorously speaking, the blind man does not exercise this sense so very much more in a given time, than one who sees; he merely gives greater attention to the feelings produced by it. Now, increase of development ought to result from the actual exercise, not from the attention with which that exercise is accompanied. We expect a man will improve his muscular strength by exercise equally well, whether his mind is absorbed in other thoughts, or wholly fixed upon the motion of his legs or arms. The vividness of cerebral action is not of necessity proportionate to the vividness of attention. If we are accustomed to hear continuously a very loud noise, we at last cease to pay more than occasional attention to it. Nevertheless its effects on the organs of hearing are unceasing and undiminished, as is proved by the fact that we hear it as loud as ever as often as our attention happens to be directed to it; and by the still more unequivocal fact that it all along interferes with our power of hearing other sounds. Now we are every instant of the day receiving impressions of touch upon some portion of the body; the organs of touch, therefore, are in perpetual action. Our greater or less attention neither increases or diminishes this action, since it results from external agencies, over which we have often no control. Improvement in organization then, if it takes place at all, must be independent of attention. If so, the difference between the blind and others being in the greater attention bestowed upon the impressions of touch, rather than in any great increase of organic action, this sense ought not to display any considerable improvement in their case, even on the supposition that exercise is naturally calculated to confer such improvement.

But let us for a moment suppose that there is this improvement, that the habits of the blind produce an increase of development in the organic apparatus of the sense of touch. Then this apparatus must consist solely of the external nerves of touch, or of those and a special organ in the brain, to which all the impressions made upon them are conveyed. It matters not which supposition we take. We shall then take the latter. Whether then is it the internal organ, or the external nerves, or both, which increase in development? It is evident that the external nerves must be as much exercised as the internal organ; no reason, therefore, can be assigned why they should not increase as well as the other. The functions of both are analagous, the substance of both is analagous, if not identical—there appears no reason whatever, why exercise should not produce similar effects on both. Now the nerves must increase in one or two ways, in thickness or in length. It is clear they do not increase in length, otherwise they would grow out of the skin, or our fingers, arms, legs, &c, would have to be increased in length to accommodate their growth, nothing of which takes place. They can then increase in thickness only. But if exercise causes matter to be added to a nervous filament in the direction of its breadth only, it ought, for anything we can see to the contrary, to produce no other effect on the filaments of the cerebral organs. There is no mechanical impediment in the way of an increase in length in the case of the former, at all to be compared to what exists in that of the latter. In the one case, there is a hard skull to resist the lengthening of the organ, in the latter there is merely a soft skin. We cannot then see why exercise should produce bumps upon our heads and not upon our fingers. Besides, if the bones of the skull can accommodate themselves to increase or diminution in the brain, as we know they do, why should not the bones of the fingers be equally accommodating? If the cerebral organs increased in breadth only, we could hardly ever detect that increase from external appearances. We might see that the whole head, or some region of it had increased, but we could not tell to which organ the increase was due, except perhaps in the case of the organ of Form, and one or two others. Here we have evidently many difficulties thrown in the way of our admitting that exercise necessarily tends to increase organic development. These difficulties are so serious, that nothing but the most unexceptionable facts can neutralize their force. We have yet to learn that any such facts exist.* Nothing need be said in reference to the suppo-

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* This sense seems to form an exception to the rule that has been laid down concerning the great superiority of the senses among savage tribes. We hear nothing of their superiority in this case, because they are not necessitated to exercise this sense in any way different from, or more than civilized men. We hear of its improvement in the case of the blind only.

* The class of facts alluded to in the above argument deserves the serious attention of the Phrenologist. We shall allude to them more particularly when we come to speak of the muscular powers.

sition that the sensations of touch depend wholly on the external nerves. If that opinion be received, there is no evidence whatever of any organic increase acompanying the apparent increase in functional power.

When, in the next place, we examine the phenomena presented by the blind in respect to the perfection of the sense of touch, we find them in every possible respect analagous to those already spoken of in connection with sight and hearing. It is in the highest degree questionable, whether a blind man can recognise a more minute impression of touch than one who sees. The difference seems to consist altogether in the amount of information derived from the impression made. This information is chiefly the consequence of attention, memory, comparison, and reasoning in general. In fact, all persons of tolerable delicacy of structure are capable of perceiving bodies by this sense, the instant they are barely in contact, and no one can perceive them sooner than this. The blind finding it necessary to pay marked attention to a thousand little differences which others can afford to neglect, soon learn to derive an amount of information through the means of this sense, which, upon a superficial view, seems to involve an extraordinary increase in its functional power.*

We have now examined the effects of exercise upon three of the most important of the senses, and found nothing whatever to support the recognized theory. We find, on the contrary, that all the phenomena evidently shew that nature has taken the development of these organs into her own hand, and that nothing we can do can make the least addition to it. We may injure them, we may derive more or less benefit from their action, but their natural size and their natural power we cannot extend. Very little need be said in reference to the remaining senses, *Taste* and *Smell*. All the previous arguments are applicable to them. They are as perfect in early youth as at maturity, usually more so. There is nothing to shew that their perpetual exercise increases their power, or the size of their organs. They are much more subject to irregularities, changes, and idiosyncrasies than the other senses; but these afford no evidence against the conclusion we have arrived at; if anything, they tend to support it.† It would be tedious to repeat our former range of arguments; in their application to those senses, the intelligent reader will at once perceive their bearing. We shall, then, before proceeding to the consideration of the internal senses, examine this question of exercise in reference to muscular development.

That muscular development is increased by judicious exercise and diminished by inactivity, is a position that seems to have been universally acquiesced in. Perhaps it has never before been called in question; and yet, strange to say, it is one which will not bear examination. So true it is that the most profound minds may go on, from age to age, in the belief of superficialities, unless some circumstance specially directs their attention to the foundations on which their opinions rest. Most of the systems of the body present, in the progress of their development, an unvarying course. Up to a certain age, they increase with more or less rapidity, in all their dimensions. Arrived at that age, all further increase in *length*, is arrested, with, we believe an undeviating inflexibility. Up to an other period, however, there is increase in the lateral dimensions, and especially in the *consistency* of almost all parts. Then development entirely ceases. The body has arrived at complete maturity. These two periods vary in different individuals, according to their race, just as do all the climacteric periods, but in all individuals of the same race they occur at precisely the same periods, nor do we see any reason for believing that external agencies have the least power of accelerating or retarding them. The organic systems that unquestionably follow this course, up to the first period, are the bones, the muscles, the spinal column and external nerves, the vascular system, the teeth, the hair when uncut, and in fact nearly all parts of the body on which exact and sufficiently numerous observations have been made. Most of these, also, receive their ultimate development at the second period, and though, from the nature of the case, there is not sufficient evidence to render it absolutely certain that it is so with all, yet everything tends to that conclusion, while the contrary supposition appears wholly destitute of any real foundation. There are certain subordinate parts of the body respecting which nature has made special provision for growing at all times, to remedy the effects of accidents—viz., the hair and nails, and in a subordinate degree the skin. Lesions of most of the other parts may also, to a certain extent, be healed by a partial formation of their respective substances, but beyond this, if growth in length or thickness takes place, it is the result of disease. There seems, also, a slight oscillation in the consistency of the softer organs, proportionate to health and exercise, of which we shall presently speak, but this also leaves our proposition unaffected.

Let us now see what foundation there is for the assertion, that judicious exercise tends, at all periods, old age of course excepted, to increase muscular development. In the first place, it is plain that general analogy is against this supposition. Why, it may be asked, if exercise causes the muscles to grow in breadth, does it not also cause them to grow in length? The bones ought not to be a difficulty, they are no difficulty

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* Nothing need be said in reference to the accounts occasionally received of blind men who judge accurately of colours by contact merely. These accounts are vague and unsatisfactory, and even admitting their accuracy, this power is so seldom manifested, that it cannot affect the present argument.

† These senses evidently depend on very complex apparatuses, and not upon single organs, and it is partly from this reason that we find such great variety in the preferences and antipathies of different people in regard to food and odours, but temperament is a still more frequent source of these differences.

in the case of the brain. The bones and also the vascular bodies are subordinate to the muscles; the nervous and muscular systems are the essential parts of the animal; all others are formed for them, and in direct reference to them. Had it been desirable, therefore, that exercise and other external influences should cause a lengthening of the muscles, or were such a result a necessary consequence of exercise, there is no reason for doubting that the bones and blood-vessels would have accommodated themselves to the lengthening, as they had done for so many years previous to the stationary period. We can see no difficulty whatever in their lengthening after maturity as well as before, if the thing had been desirable or necessary. Again: Why is it that the muscles increase in size in consequence of increased exercise? The only reason that has been assigned, or that can be assigned is, that thereby the various functions of digestion, circulation, &c. are more perfectly performed, and that there is an increased flow of blood, and consequently of the materials of nourishment to the excited parts. But these effects are general, and their consequences should also be general. Every part of the body ought to grow more or less when the muscles do, if this be the reason for muscular growth. The bones share in the benefit, the blood-vessels especially do, so do the nerves, not only those of motion, but those of sensation also. In like manner, there is no doubt that in these cases the materials of nourishment are abundantly supplied to the brain, but but we have yet to learn that a life of healthy muscular action is necessarily calculated to increase cerebral development. Witness the smaller heads of the labouring classes generally. This reason, then, if it proves anything, proves a great deal too much; and it must, therefore, be entirely abandoned. Again: if exercise is such an essential element of growth, how is it that growth is most rapid in the fœtal and infantile states, anterior to all exercise of the kind we speak of? And if the laws of growth are thus independent of exercise, in early life, why should they not continue so? There may be necessity, in after life, for such an amount of exercise as is requisite for the purposes of health, but there seems no reason for requiring more than this.

Again: the muscles must increase in volume in one of two ways; either by the addition of new fibres, or the thickening of the old ones. Now, it is not easy to see how exercise should originate a muscular fibre. If the number of the muscular fibres in each individual be not strictly determined, if such an accidental cause as exercise is capable of originating them, why should it not originate new muscles in the large sense of the term, and new blood-vessels, and new nerves, and new bones even? How can there be order and harmony, when chance is so powerful? The human body is not like a tree that has no definite number of parts; it is an exact piece of mechanism, every portion of which is nicely calculated. There is not a hair on the head that is not numbered. If it be admitted that exercise can originate the minutest fibre of the system, we see not how its effects are to be limited. Besides, the extremities of the muscles are very far apart; the fibres must originate at one extremity, and grow to the other, or grow till they meet, and unite between the extremities. At this rate, a man in constant exercise, must have a large mass of imperfectly formed fibres, attached at one extremity, looks at the other, something like the hair of the heads and these must be found surrounding or dispersed through all the principal muscular masses of the body. We have never heard of anatomists finding out anything of this kind. Neither do we see how this is to be reconciled to the existing arrangements, in which it is found that every elementary fibre has its own sheath, every bundle of them a common sheath, every bundle of the larger ones another sheath, and so on, till all have been thus compacted again and again. The idea of originating muscular fibres by exercise, seems, therefore, wholly untenable in fact or argument.

The notion of increasing the thickness of these fibres by exercise, is but little less objectionable. Similar effects should be produced upon all the tissues as upon the muscular ones. Besides, it is not exercise alone that causes a rapid and healthful flow of blood; all the joyous emotions do the same; why do not these increase the size of the arms and chest? They evidently give tone and vigour to the whole constitution. Again: why are there as many differences in the muscular developments of children, as in those of adults? Is it because they have received the constitutions of their parents, and that the peculiarities of those constitutions have been originated by peculiarities of habits? Then why are these peculiarities stationary in races? Why does not every generation add something to them, till at last they become horrid monstrosities? The habits of the hunter remain unchanged from age to age, so does his elegant form. If these habits created his peculiarities, why have their effects ceased? If the habits of the greyhound have determined his very peculiar form, why do they not perpetually tend to exaggerate it? And so of all other animals. We see no escape from this argument. Besides, it is not the larger races of animals, either among men, or the inferior ones, that take the greatest amount of muscular exercise. It is, *cæteris paribus*, quite the reverse. And thus, nature often makes up in activity what is wanting in power. It will be wholly useless, therefore, to urge the cases of dancers, blacksmiths, &c., &c., unless it can be most clearly shewn, by unquestionable evidence, that exercise has produced their peculiarities. For ourselves, we see no evidence at all of any such result; we see nothing but *assertions* in direct contradiction to all our knowledge on the subject.

But there is one class of facts, which, upon the first view, seems to support the conclusion we are combatting, but which, when a little more fully investigated, proves in every way opposed to it. We allude to the effects of training

as a preparation for any great muscular effort. The effects of training are striking in proportion as the previous habits of the individual have been less energetic. Let a citizen for instance, commence a course of gymnastic exercises. After he has recovered from his first stiffness, he gathers strength with great rapidity, and he is very apt to conceive the most exaggerated notions of future improvement. But, after a few months, he finds that his absolute strength has become stationary, though his available strength may be still on the increase, in consequence of the increasing facility of muscular action. Soon, however, all progression ceases, provided he have reached the period of full maturity. If not, the body will, of course, by the ordinary laws of growth, increase in development till this period be reached, whether the individual continues his training or not. Thus, boxers, wrestlers, pedestrians, never think of continuing their training beyond a certain time. It is equally so in regard to the inferior animals. The powers of dancers, musicians, artists, mechanics, orators, poets, philosophers, &c., &c., after a certain time become stationary, and so continue till they begin to deteriorate by old age, although these powers are kept in constant and energetic exercise. There is not, that we are aware of, a single instance of continued progression, in human power or organization, physical or intellectual. Up to a certain age there is progression, whether we take pains or not; beyond that, there is no advance, however continued and judicious our efforts. At all ages, a certain amount of exercise is requisite to bring out completely our natural powers; this varies with the difficulty and complexity of the movements to be made. A pedestrian requires less training than a boxer, and he less than a dancer, singer, or instrumental musician. In *knowledge*, indeed, there is a real progression, and in *skill*, an apparent one, until the period at which the enfeebling effects of old age begin to be felt. Consequently, in the works of literary men, we may look for superiority in those that are produced long after the period of maturity, provided they be of that character in which knowledge and skill are the leading features, but if we require vigour and genius, we must go to their earlier productions. In looking at the efforts of some great instrumentalists and singers, it might seem, at first view, that there was indeed a continued progression in their skill. But, upon reflection, it will appear that the improvement consists in the introduction of new combinations, rather than in increased excellency in those long practised. An ambitious mind may thus be continually making new conquests while its powers last, but the utmost height to which it can reach, in each case, is attained after a moderate time, and is strictly proportionate to the native powers.

It now remains to consider how it is that training produces such rapid improvement, and how that improvement so soon reaches its term. Though we have questioned the possibility of improving our organization beyond the point to which unassisted nature would carry it, we have not denied our power of deteriorating it. It is in the very nature of things, that a piece of mechanism should be capable of being injured in a vast variety of ways, while there may be few, or no means of improving it beyond the original plan. The human mechanism is liable to be weakened in its powers, by many influences that do not act fatally upon it. On their removal, however, it gradually recovers its vigour. Among these influences, must be considered inactivity, from whatever cause originating. A moderate degree of exercise is indispensable for keeping up the vigour of all the organs of the body. In regard to the muscular tissue, we find that long-continued inactivity produces perceptible effects upon it. Its solidity becomes diminished, and a mass of muscles frequently presents a considerable reduction in size. The greater part of this attenuation must undoubtedly be due to the wasting of the cellular tissues, and the disappearance of fat, rather than to change in the muscular fibre itself, as we find that a very short illness is sufficient to produce a remarkable diminution in the size of the muscular masses, while upon the return of health, there may be an equally rapid restoration of their former size. Still, it is by no means unreasonable to suppose that the muscular fibre itself, may become occasionally reduced in size by long inaction, as we certainly find it reduced in power. When this is the case, it is possible by judicious management to raise it to its natural state. But this admission, it may be said, involves the growth we are contesting, and it may be asked, if we admit the fact of growth, why limit its action? Simply, because, as we have stated, all the facts of the case compel us to do so. We see that nature has provided ample means for the restoration of health and strength, but we do not see that she has entrusted to our care the task of bringing her work to perfection. The whole case, may, we think, be sufficiently accounted for, in a general way, by the known laws of organization. There are two antagonistic processes perpetually in action, in the animal economy, the process of nourishment and the process of destruction: the one continually bringing new materials to all parts of the body, the other continually taking away those which are old and useless. It is a general, if not a universal law of our nature, that those powers which come first into action are the first to decline, and we find this to be the case in the present instance. The powers of nutrition come into action before those of reparation, and in the earlier periods of life, both are in intense energy, those of nutrition, decidedly predominating, consequently the body is continually growing. Insensibly, however, the nutritive forces diminish, till, by degrees an equilibrium is established, and growth ceases. Ultimately, the opposite forces begin imperceptibly to predominate, and old age creeps on, and finally death. No one can surely doubt that this great course of increase, maturity, deterioration, and death, is fixed and inevitable: that it has been expressly provided

for, by the Creator, and that it is necessarily produced, by the laws of organization. But if man had the power of increasing development, he must, of consequence, have the power of altering the relation between the two great antagonistic forces we speak of. If he can keep the nutritive force in predominance, or restore its superiority after it has been lost, then he surely must possess the means of maintaining a perpetual youth and unlimited growth, or, at least, of preserving a sort of progressive maturity, and thus keeping off, *ad libitum*, old age and natural death. This conclusion is the logical consequence of the position we are combatting, and there are few, we suppose, who will care to accept of it. When then there is anything of the wasting we speak of, it is more or less a case of disease, and when the cause is removed, the natural state is re-established. When the nutritive system has regained its proper vigor, any vacuum previously formed is rapidly filled up, and everything moves on harmoniously. It must never be forgotten in a discussion of this kind, that the effects of exercise are general; that if it increases the nutritive forces, it must equally increase their antagonistic forces. The organs of these respective forces are everywhere intermingled; the flow of blood that benefits the one, must benefit the other; in perfect health, both must be in full vigor. There seems, then, no way of understanding how exercise can have a tendency to increase development, nor, when properly examined, are there any facts to countenance the supposition. Exercise is necessary for the preservation of the health and vigour of all organs; the want of it may create impediments to development; but even when taken in the most exact proportion, its effect is merely to place things in the best condition for the action of the natural laws, not to regulate that action.

(To be continued.)

REMARKS ON CEREBRO*-MAGNETISM, OR MESMERISM.

By Mr. F. S. Merryweather.

To dogmatically denounce a circumstance because beyond our powers of comprehension, at once proves the absence of a philosophical spirit. And so, on the other hand, to proclaim an assertion as true without a sufficient amount of evidence, equally denotes a want of scientific scrutiny. "Mesmerism is established" by an amount of facts far exceeding those which serve as the foundation of many acknowledged sciences. The majority of the scientific men connected with the medical faculty, listen to the wondrous accounts of the mesmeric influence with countenances bearing the stamp of assumed wisdom, and condescending incredulity. The unscientific clergy, whose legitimate province is not publicly to decide upon the truth or fallacy of a philosophical question, have already denounced from the pulpit Mesmerism, as the agency of the Satanic spirit. But it is useless thus to endeavour prejudicially to drown the voice of truth, or stop the discovery of scientific facts. How many mighty schemes have proved useless under the blasting influence of prejudice! How many gigantic facts have been stifled, because supposed to be detrimental to preconceived opinions! But it is impossible, even by prejudice, to annihilate truth. Its progress may be stopped for a time, but in after ages it will rise up, evidence against a biased philosophy. Was not this the case with phrenology? was it not at its birth attempted to be smothered by the clamour of prejudice, and professional interests? It was opposed, and its supporters denounced and unceremoniously treated as fanatics and enthusiasts. The mighty waves of opposition which swept over the hemisphere of learning, dashed with impetuous force against the immoveable rock of phrenological truth, and re-acted, broken into a thousand impotent waves! This spirit of Combativeness has been levelled with threefold violence, at the followers and practisers of Mesmerism. No candid reasoner can assert after a careful investigation into the subject of animal magnetism, that all the phenomena they behold are produced by deception and collusion. It is true they are wonderful, but why do they appear wonderful? Simply because they are not in accordance with the operations of nature which we are every day observing. A fact may be rare and unfrequent in its occurrence, and consequently wonderful in its nature, but nevertheless it does not become on that account impossible or miraculous. Many of our most eminent philosophers have asserted their belief in this extraordinary influence. The celebrated Cuvier says, that the circumstances attending animal magnetism "do not permit us to doubt that the proximity of two animated bodies in certain positions, combined with certain movements, have a real effect, independent of all participation of the fancy. It appears, also, clearly, that these effects arise from some nervous connection which is established between the nervous systems." La Place says, "The singular phenomena which result from the extreme sensibility in the nerves of particular individuals, have given rise to the various opinions relative to a new agent, which has been denominated Animal Magnetism—to the action of the common magnetism—to the action of the mineral magnetism, and to the influence of the sun and moon in some nervous affections—and, lastly, to the impression which may be experienced from the proximity of the metals, or of the running waters. It is natural to suppose that the action of these causes are very feeble, and may be disturbed by accidental circumstances; but because in some cases it has not been manifested at all, we are not to conclude it has no existence. And we are so far from being acquainted with all the agents of nature, and their different modes of action, that it would be quite unphilosophical to deny the existence of the phenomena, merely because they are inexplicable in the present state of our knowledge." A number of other extracts could

* If the magnetic influence is proved to be generated by the brain, the term Cerebro is certainly the most appropriate.

be given, equally important, but these two will suffice for our purpose. As yet, little has been done towards elucidating the cause. As no effect can be produced without a cause, theories have been advanced, and hypothesis fabricated, founded on an extensive observation of mesmeric experiments, most of which have since proved to be erroneous. The phenomena are so strange, and, to us, so wonderful, that they appear at times quite unaccountable. We shall perhaps be pursuing the safest course, if we endeavour to discover the cause by anatomical and physiological science. No function can be executed without an organ, and no organ exists without having some legitimate function. And as it appears evident to us that Mesmerism is the function of some organ, or set of organs, it must be obvious then, that the only philosophical course to pursue, is to endeavour to discover the organ or organs engaged in performing this function. Dr. Keenan considers, that the lungs are a galvanic battery. I have not had an opportunity of either hearing his lectures, or obtaining any knowledge of his theory, except what I have gathered from the two letters of N. O. N., and the communication of Mr. Tennant. It would be as well to mention a passage in that gentleman's letter, where he says, speaking of my views on the subject, that I do "not appear to be aware that the *lungs, and not the brain*, are the galvanic battery, as discovered by Dr. Keenan." Mr. Tennant must have known that I had not attempted to expound or advocate the theory of Dr. Keenan. My communication was written before I had heard a single word of his newly discovered battery, and, consequently, I could not be aware of a circumstance which I had never heard, and with which even now I am far from agreeing. I certainly do not, after a perusal of these limited extracts, feel at all inclined to relinquish my former opinion, that the brain is an apparatus generating a fluid similar to that of electricity. Dr. Keenan, as far as I can learn, seems to consider the blood as the source whence this power proceeds. And yet, when giving his opinion as to the cause of Mesmerism, he said, "it was merely a drawing by friction, to any particular part, an undue portion of the *nervous influence.*" But leaving this extract, the question to solve is simply *Where is this power generated?* That the blood possesses and exerts an important influence on the nervous system, I do not for a moment deny. But I think it appears highly probable, from a careful consideration of the anatomy, physiology, and pathology of the nervous centres, and their conductors, the nerves, that the brain *first* influences the blood, and that the blood performs a re-acting influence on the nerves. Determination of blood to the cerebral mass, will often produce delirium or insanity. Here, then, it is evident the blood is greatly influencing the grand nervous centre; thus showing the power of the blood over the mind's organ in such cases. *But what causes* the blood to rush to the head? Is it not often brought on by excessive study, and exertion of the brain? Then the qusetion is, whether the nervous centre, being in an over excited state, did not at *first* cause that determination of blood to the head. The brain may be considered as having peculiar properties. It evidently possesses the positive and negative powers of electricity, for it can mesmerically repulse and attract: it is capable of generating a fluid which, when directed to an individual, has the power of exciting, in an extraordinary degree, their nervous system. I have often seen patients when in a state of Mesmerism, thrown by the operator, exciting his magnetic influence, violently forwards, when the patient was apparently quite unaware of it. I have also seen them repeatedly drawn to any part of the room by inverse passes, even when their backs have been turned from the operator. Here then we see, that the brain, through the medium of the nerves, has the power of attracting or repulsing. Now, considering that the encephalon is the grand centre, or principal apparatus generating this power, might it not be in consequence of its being over excited, and thus possessing a greater degree of *magnetic power*, that the blood is attracted to the brain with that velocity which causes a derangement of its functions. We also find in some cases, that the brain becomes disordered by a loss of this magnetic power. Excessive drinking will produce *delirium tremens*, which is in consequence of a deficiency of blood supplying the brain, or rather on account of that organ not having sufficient *attractive* power to retain it. The best remedy in such cases, is to administer strong doses of opium, or other stimulants which act upon the brain, endowing it with attractive power. If the mind is incessantly directed to one particular subject, the organ engaged often becomes unduly worked, and consequently produces a derangement, which sometimes attracts the blood to those particular parts. Now, if there was no magnetic power, how is it that the blood, in cases of partial insanity, does not extend over the whole cerebral mass? Or how is it that the brain becomes inflamed at those particular faculties known to have been previously over excited, if they had not become endowed with an attractive power? Thus, blood determinating to, or receding from the brain must be considered as the *effect*, and *not the cause*, of a derangement in the organ of the human mind. That circumstances operating upon the brain greatly affect the blood, is evident: thus, if Self-esteem, or the combative organs, are excited by opposition, they produce *passion*. I think it will not be denied that passion is *first* produced by the excitation of certain organs of the mind, which, through the medium of the nerves, influences the blood, causing it instantaneously to rush to the part or parts excited. To assert that the blood *first* produces these manifestations, whether passion, delirium, or insanity, is at once striking a blow at the root of all phrenological science. Whether I am taking a right view of Dr. Keenan's theory or not I cannot say; but in either case these few remarks will be of use, inasmuch as

they tend to substantiate the opinions which I have given in a former communication:—viz., that *the brain is a galvanic battery, generating a fluid analogous to electricity, and capable of producing the mesmeric effects.* With respect to the theory pervading this article, many, no doubt, will esentially differ. This is no more than can be expected; and although it appears to me to offer an easy explanation of many of the magnetic effects, still I am willing to renounce it when another is proved by a greater number of facts, to present a more lucid explanation. Admitting the truth of the Mesmeric influence, we must be careful in drawing a line of distinction between those *facts* which can be seen and proved, and those reported as true, but which will not bear the scrutinising eye of scientific rigour; these remarks are not penned hastily, or with a view of casting upon any one the appellation of deceivers or dupes, but are drawn from witnessing and testing a considerable number of Mesmeric cases. It is often that the establishment of truths, wonderful in their nature and important in their results and practice become injured, and their progress retarded by the conduct of their friends. The truth of this moral is no where so truely exemplified as in the practice of Mesmerism as an experimental science, unscientific men have practised, unphilosophical individuals have lectured, and by their hasty experiments have drawn equally hasty and unsatisfactory deductions; so great and overwhelming has been the confusion, so contradictory the assertions, that not only Mesmerism, but the important truths of phrenological science were like to have been swallowed up by the waves of Enthusiasm, and thrown back in practical utility some two or three generations. It has often been painful to observe the hasty conclusions which some have arrived at: thus, one, on the evidence of two or three cases asserts, and even declares publicly the grand discovery of a new organ of the human mind! others on equally shallow grounds, contend for the almost unlimitted power of their *will*, the very action of which they cannot physically explain; it is often more easy to believe their various assertions, than the most extravagant dogmas of metaphysical sectarianism. With respect to phreno-mesmerism, it would be folly and against the direct evidences of our senses to deny it altogether. But at present so little is known of the respective function of each cerebral organ, that it would be premature to admit the bulky lists of the modern phrenoe mesmerists. We often hear of operators producing the same manifestations from exactly different parts of the head. For instance, one declared gravely the discovery of an organ of "*Intoxication*"! seated at the top of the head, another produced a manifestation at the back below the cerebellam, and a third excited with equal force the same function, by applying the magnectic power below the ears! and yet these operators concluded that they had discovered a new organ, which they pleased to designate the organ of "Intoxication," this, certainly will be a strong argument against teetotalism! Now, when we meet with such conflicting manifestations, such clashing opinions, we ought to pause before drawing such decided conclusions. A great deal may be produced by habit and suggestion, the least clue by which the patient is enabled to obtain a knowledge of the wishes of the mesmeriser is eagerly availed of. The following case communicated by an experienced practitioner, tends to show the effect of suggestion, and serves as an illustration of a feeling generally evinced by mesmeric patients, to conform with the wishes of the operator. The patient, a young lady, of extreme susceptibility, was thrown into a mesmeric coma, with the idea of noticing the effect of suggestion, the operator intimated to her his intention of endeavouring to excite the organ of *sleep*, which he said was supposed to be located on the *thumb nail*, he then gravely made several passes over the part, when strange to say, the patient began to yawn, stretch herself in a composing manner and fell back, manifesting to a nicety all the preparatory actions which denote the approach of sleep! Considering these circumstances, which are by no means rare, what dependence can be placed on Mesmerism as a means of establishing phrenology? The experiments must be executed in a truth-searching manner, with more philosophical care and scientific scrutiny, and entirely separated from that excessive enthusiasm, which at present characterises its followers, and which is apt to lead to hasty conclusions, by observing a limitted number of *facts*, till this is done little practical good can result from *Cerebro Magnectic* operations. The mental manifestations of the majority of Mesmeric patients are very excited, confused, and often times perplexing, indeed the brain appears to be temporally deranged, producing as a necessary consequence deranged actions, similar in many respects to mild delirium, and I doubt not it will be proved to produce changes in the hair analogous, to those found in cases of delirium. *The brain, or galvanie battery* of the patient being overcharged, attracts an over quantity of blood to the head. It might generally be observed, that the blood has a tendency to determine to the cerebral mass, when the cerebro-magnetic influence of the operator is exerted, and this sometimes acts with such velocity, as to cause great inconvenience, requiring considerable exertion on the part of the magnetiser to overcome. Manipulating the head will often cause a determination of blood to that part, and is far from being without its inconvenience; the the least danger to be apprehended is the headache and *megrims*, and it sometimes, (though certainly this is rare,) leads to more serious results.* The confused manifestations produced by various mesmerists, is not at all to be wondered at, but can receive an easy explanation by this theory. The excitation of an organ is produced either by direct contact, or pointing in a line with the particular part of the brain wished to be called into activity, and oftentimes a mani-

* Peste.

festation is produced so different from what they considered to be the natural function of that particular part that it is constantly proclaimed a "new phrenological organ," and a demand is issued for its respectful admission into the lists of the old phrenologists. By a little careful consideration, we shall soon be able to detect the error. They seem to forget that before they excited a particular part, they had charged by means of passes and manipulations, the *whole brain*, consequently a compound manifestation is produced, or rather one *influenced* by the *general activity of the whole mass.*

The class of phenomena called cataleptic, seems also impregnated with considerable error. Many operators have asserted that by manipulating their own limbs, the patients could be thrown into a state of rigidity. This appeared almost indisputable by the experiments performed on a patient whom I saw magnetised several times. But being anxious to direct the actions of the operator, I was allowed to do so. The result was in my mind, (as in many others present) a conviction of the unsoundness of the *facts* as well as the *deductions.* I remembered that at a former period in the evening, the patient's arm had been "catalepsed," and it appeared highly probable that the limb had acquired an extra degree of nervous and physical power, in consequence of the charge of *cerebro-electricity.* A connection being thus established between the nervous state of the two limbs. When the operator gradually raised his arm, the corresponding limb of the patient also rose. This seems more probable, as when the arm had *not* been previously catalepsed, it would not obey the mandate of what the disciple of Mesmer designated his "*will.*" There is a test, and I must say a very unsatisfactory one, to endeavour to demonstrate to persons sceptically inclined towards mesmerism, the truth of the cataleptic phenomena. I allude to the practice of applying a weight greater than could be supported in an ordinary state. Now, if the *cerebro-magnetic* fluid has the power of imparting strength, which I think is manifest from the stiffness and inflexibility of the limbs manipulated, does the fact of a patient in this state being able to bear an extra weight, at all *prove* the limb to be *catalepsed ?* I certainly think the evidence is not sufficient to warrant the inference, especially when we find it can be explained on other grounds equally probable. With your leave, I will at some future period, resume the subject, and make some further remarks on the practice of mesmerism.

F. S. MERRYWEATHER.

THE

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IT is surprising what injustices, absurdities, and impertinences some people deem themselves entitled to perpetrate, when discussing a new and unpopular truth. They speak of impossibilities as flippantly as if they knew all that was possible, and impossible in nature; they make charges of imposture as confidently as if they had taken infinite pains to sift the characters of those whom they denounce. Feeling themselves strong in the support of a party, they offer insults where they would hardly dare dream of them, if they stood solely upon their own resources. What would be thought if a lecturer on chemistry, after performing an experiment before a large and respectable audience, at a scientific institution, were interrupted by some one in the audience, who very sapiently asserted that the experiment was a delusion, and unequivocally indicated his conviction that the lecturer was practising on the credulity of the public? Would not the insult be instantaneously and universally resented? But if mesmerism, for instance, happens to be the subject, another code of morality and propriety is in force, and he who in the former case would have been regarded as an outrageous impertinent, might, in the latter, find himself the hero of the moment, applauded to the echo.

But there are cases in which it may not be safe to treat a mesmeriser as an impostor: the peculiar circumstances of the occasion, the known character of the man, his social position, or the fact that he is one not to be trifled with, may ensure him proper outward respect. What is to be done in that case. Oh, then his patients are impostors. Imagine—A lecturer leads before his audience three or four poor patients (none others of course can be got for such a purpose) and with them come and sit, in some humble place, some of their anxious relatives. Perhaps the patients are boys or young men, but boys and young men have feelings and characters to be injured, and their parents and friends have feelings also. But, perhaps too, there may be amongst them a poor girl, old enough to see and feel her position, when she steps before that audience, and modest, and timid enough, to shrink from it—but she is very poor, and the offer of a few shillings is not lightly to be rejected, nor the persuasions of her friends easily resisted. She, herself, probably knows nothing whatever of the magnetic condition but what her friends tell her, and to them every thing appears so clear that they do not see how an audience can mistake them; and so they persuade her that they will not be mistaken, and that she assists in supporting a great truth, and a science, &c. &c.

And so trusting to all this, and relying on her magnetizer, she steps out upon the platform, and casting up a timid glance, beholds five hundred or a thousand faces looking down upon her! Oh! stouter hearts than hers have trembled at such a prospect. Poor girl! how insignificant does she feel before all these ladies and gentlemen! A great wonder certainly if the experiments are a total failure that night. However, the experiments proceed, and the agitated patient is mesmerised, or partly mesmerised, and then a *man* starts up from the audience, and pronounces the whole a delusion, and the patient an impostor; that is to say, a liar so mean as to utter falsehoods for the consideration of a few shillings, and so impudent as to come forward and utter them in the presence of hundreds. And this he says in the hearing of her friends, she, herself, poor girl, being, at the time, unconscious of the insult. "Do you know this girl, sir?" "No." "Have you ever seen her before?" "No." "Have you ever heard of her before?" "Never." "Do you know anything at all about her, or about her friends?" "Nothing whatever." "Then perhaps you are so profoundly skilled in human nature as to detect an impostor at a glance?" "I do not pretend to any such skill." "But, sir, you have heard this magnetizer, whose integrity you profess to respect, assert his conviction that these experiments are genuine, as far as they go; you have heard many, perhaps a large portion of the audience, also express by their plaudits, their conviction of their genuineness; and furthemore, you have heard the lecturer declare that these experiments are nothing to what he has seen performed by this patient under more favourable circumstances, and that all who know her, speak unhesitatingly of the sincerity and uprightness of her character. You have heard all this, and without one single reason to support you but the *notion* that mesmerism is impossible, you thus outrage a defenceless female, of whom you know absolutely nothing. Aye, had the experiments been elsewhere, and the patient a lady, and her brothers or husband standing round, would you have dared to breathe a word about imposture? But of course there is no harm in insulting a poor, undefended female."

How often has such conduct as this been witnessed, under circumstances more or less similar. We dare not trust ourselves to speak of its brutality, heartlessness, and unmanliness. We hope there is usually more of thoughtlessness than design in it, more of obstinacy and conceit than of a want of benevolence, but whether this be so or not, such conduct is inexcusable. Where the feelings of others are concerned, men *ought* to think. Those who pronounce such sentences should have the most ample evidence before them. But above all, and before all, where those who are thus tried are poor and defenceless, all the sympathies of our nature should be arrayed in their favour, not turned from them. No one can complain or wonder that people should suspect imposture, when such startling things are offered to their notice, but it is cruelly insulting to utter those suspicions in the presence of those whom they concern. It is time enough to condemn, when there is full proof.

A disgraceful scene of this nature took place on the 4th instant in the Theatre of the Literary and Scientific Institution of Greenwich, before which Mr. Vernon had been invited to lecture. "The Morning Herald," from which we copy, states that the Hall, which will contain upwards of one thonsand persons, was crowded to excess. "Among the company were a great number of ladies, several of the county magistrates, gentry, and professional and scientific men." The patients were "the boy Cook, a very intelligent looking youth, a young man, apparently about twenty years of age, and the very reverse in appearance to Cook, and a young woman about the same age. She was very pale, and having looked timidly round, sat down, and appeared to pay great attention to the lecturer's address." The lecture being over, the scene became gradually one of indescribable confusion and uproar, and it was some time before the experiments could be proceeded with. One medical man seated himself before the lecturer, and requesting to be operated upon, because, forsooth, as "a professional man he should be a better patient!" "He was willing to be a convert—the test, however, must be his being subjected to the mesmeric influence." He must be a very wise man this Mr. Mitchel; and it would be a great matter certainly to convert him. But the lecturer had come for a different purpose than to attend to the whims of Mr. Mitchel, or any other individual, and he of course refused. It is not our object to give a particular account of the proceedings, the public is familiar with them through the medium of the papers. We shall merely observe that after the female spoken of was mesmerised, and had been subjected to various most severe tests, one of which was that a

bottle of strong ammonia was applied to her nostrils and mouth for several minutes, with hardly any perceptible inconvenience, the uproar became so unbearable that the lecturer was forced to lead the patient away, and that after returning and mesmerising the lad Cook, and while his arms were extended in a cataleptic state, "a Mr. Harris, a cabinet-maker, in South-street, Greenwich, in a ruffianly way, struck the patient a tremendous blow on the hand with a stick; the blow sounded above the buz and noise of the meeting." This outrage, of course, restored the meeting somewhat to its senses, and called forth a universal burst of indignation. The perpetrator was immediately surrounded and given in charge to the police, but we regret that the fellow, by some means or other, has escaped the punishment he so richly deserved. The patient never flinched under a blow that electrified the audience, "nor did his hand show the least mark;" and yet the poor little fellow was an impostor! He ought rather to be called an illustrious conjuror, for this is no ordinary imposture. It would puzzle the Great Wizard of the North to receive such a blow and show his hand without a mark. It is but justice to many of the gentlemen connected with the meeting, to mention that they have spared no means of testifying to Mr. Vernon their shame and regret at the outrageous conduct exhibited towards him, and their admiration of the patience and forbearance evinced by him under such trying circumstances. They have again invited him to repeat his expements, before a more select audience, and have made such arrangements as are likely to ensure that attention which a scientific subject ought always to receive, and which such a lecturer has a right to expect from gentlemen. In the present case these Greenwich rioters were wholly without excuse. They were informed that Mr. Vernon appeared before them by invitation, and that the whole proceeds of the lecture went for the benefit of the Institution.

On the 8th instant, Mr. Vernon appeared before a large and respectable audience at the Marylebone Literary and Scientific Institution, and delivered a highly interesting lecture, which, to judge by appearances, gave great satisfaction. Everything passed off with the most perfect decorum, until the experiments were partly gone through with, and even then, whatever unreasonableness was evinced, was manifested by a few of the speakers only. After mentioning Greenwich, we hardly feel disposed to complain of anything, but still remarks were made which we did not expect to hear in that place, and there were also some very foolish though well-meant proposals about magnetizing persons from the audience, &c. We shall say something about such demands on some other occasion, we must now confine ourselves to our main object. The experiments were few, as there was to be another lecture the following week. Some of them were quite successful and striking, a few failed, and others, and indeed the apparent wakefulness of the patient were calculated to excite suspicion in the minds of the sceptical, however clear the evidence of their genuineness might be to those familiar with such things. But what we insist upon is, that it is cruel and unjust, in such circumstances, to make charges of imposture, without full evidence of its existence, to say nothing of doing so without any evidence at all, or at the utmost upon that of appearances which admit of a variety of explanations. We say nothing of the private opinions of persons, we object not now to what they may say out of the presence of the parties concerned, we speak merely of charges and insinuations made in the hearing of those who must bitterly feel them. Persons should remember that a respectable lecturer does not appear before them to submit his integrity to their judgment, nor that of his poor patients either. He places nothing upon trial but the experiments themselves. But, indeed lecturers themselves do very wrong in allowing those who come forward under their protection to be insulted by such imputations as we speak of. If the judgment and feeling of audiences were always properly appealed to, at the commencement of lectures or experiments, we have not the least doubt that they would immediately check every impropriety of this kind,

The little patient operated on upon this occasion was found after the lecture to be cross-mesmerized, fell into convulsions, and was not properly restored till 12 o'clock. Yet we learn that one or more of the medical men present declared her fits to be feigned! We have, on this occasion, confined our strictures to one point. We shall, hereafter, touch upon some other matters connected with this subject.

CORRESPONDENCE.

To the Editor of the People's Phrenological Journal.

Mr. Editor, Sir,—Observing an extract from Dr Collyer's little work on "Psychography," in-

serted in the last number of the *People's Phrenological Journal* and considering the publicity consequent on its appearing in such a quarter, I have been induced to notice what I should have otherwise considered of no moment, so far as it may be thought calculated or capable of accomplishing the intentions of the author. Having been kindly presented with a copy of the above named work, by the Doctor himself, for which I feel grateful, it will be seen I must have been previously somewhat acquainted with the passage in question, the whole design of which is intended to invalidate the entire system of Phreno-mesmerism, especially "The hundred new organs," and which is in my opinion just as much fitted for effecting the intended purpose, as what the once favorite argument of the frontal sinus, and the convolutions at the base of the brain, were calculated to overthrow the entire system of the well established science of Phrenology. That they are undoubted difficulties, attendant on the science, or prescribed limits, beyond which perhaps we may never pass, (so far as these difficulties affect the science,) I frankly admit, but at the same time they do not in the least affect the validity of the other well ascertained truths. And just of such a character are the objections urged by Dr. Collyer against Phreno-mesmerism, therefore that we may proceed direct to the main point in this argument, we will at once admit that it is the function of the cortical substance of the brain, to make manifest all mental feelings and affections, (a position I am not at all inclined to dispute,) and that the mental power, is even in proportion to the extent of cortical surface of the brain, that the real surface of the brain, exceeds that of the inner table of the skull by at least three fourths, that the convolutions of the brain, sometimes overlap each other to a considerable extent, and that the infractuosities are inclined more or less to the inner surface of the skull, all this is most readily admitted, and what can it possibly do towards disproving the facts of Phreno-mesmerism, any more than the old and much vaunted objections just referred to, could possibly overthrow a truth founded in nature, as Phrenology must be acknowledged to be. They may be pointed at as difficulties only, and perhaps these would-be-objections will fairly account for the real or apparent discrepancies, which sometimes appear in the reports of Phreno-mesmerism experiments. Just as a good practical phrenologist in predicating character, may find himself partly in error, in consequence of what may result to character from those convolutions at the base of the brain, the size of which he cannot possibly ascertain in the living subject. With regard to myself, I am not aware that phreno-mesmerists have maintained that the organs which they have excited, are located on the upper surface of the brain, and no where else; if they have done so, I should consider them to blame, inasmuch as they would be deciding a disputed question without sufficient evidence. But notwithstanding they had done so, I should wish to know why, because they were in error in this particular, does it follow, that the entire system of Phreno-mesmerism must fall to the ground, or any one of the so-called new organs, when the fact that by passing any pointed instrument over almost every spot of the cranium, in a very excitable subject, some new or distinct mental feeling is evinced, differing more or less from what preceded? While this fact remains unexplained, it is vain to cavil about the locality of the organs themselves, whether they be situate beneath ten states of organs, we know it for a phrenological fact, that those qualities which are most in action in an individual, in the wakened state are the most prone to activity, in the mesmeric recipient, so much so that you can sometimes scarcely produce an exemplification of some organs, while others manifest themselves in the most decided manner. And this may offer at least a probable solution of apparently opposing facts, why a somewhat distinct and different mental feeling, is frequently elicited from the same locality, in different individuals, sometimes the upper and sometimes the lower, or any of the intermediate organs, being the most prone to activity, and consequently being made manifest, so that after all the would-be-formidable objection proves itself not only harmless, but in support of what it was intended to demolish, and entirely the reverse of what it was expected to be. My zeal for what I conceive to be a much persecuted truth, must be my only apology for troubling you with these restrictions on the Doctor's opinions. And hope your candour and impartiality will not deny me or some other of your correspondents, the privilege of combating every anti-phreno-mesmeric opinion, which may at any future time appear in the columns of the *People's Phrenological Journal*, when it can be clearly shown that there is no other intention than purely to elicit truth.

Yours, very respectfully,
ROBERT JONES.

Liverpool, December 28th, 1843.

FACTS IN MESMERISM.

To the Editor of the People's Phrenological Journal.

SIR.—I send you the writings of a patient of mine when entranced; they are not very splendid, but they are as good as she can produce in her normal state.

I have mesmerised her twice for deafness in her right ear, and succeeded the first time in enabling her to hear *distinctly* which she could not do at all for *two years;* I now only repeat at *her own suggestion* "to strengthen the ear."

This female is remarkable for imitating every action of the operation—par example.

January 7. Entranced in half a minute, at a distance of seven feet; the instant she fell back in the chair, I ran round the table, she started up and followed, not at a slow pace, but as fast as I could make my way; I stopped suddenly, she as suddenly, not running against me as I expected. I then took a ring from the table, looked at it, placed it on my finger, removed it, and replaced it upon the table, she did the same in every particular. I started off round the table and as suddenly fell upon my knees, she knelt by my side. I then elevated my right arm in front, her *left* arm arose, my left was then raised *behind her back*, her *right* arose simultaneously.

I may here observe, in fact I consider it of great importance as assisting us in investigating the *cause*, that in all cases of a similar character I find the limb *opposed* is influenced: if I raise the right, the left responds and vice versa. Have we the magnetic poles? and is the electric circle complete when we sit down to mesmerise?

[Mesmerisers are requested to rub their fingers upon a sheet of zinc or copper, or both, after their

patients are in coma, and apply the fingers to the patient's hands, as to an electric machine, and state the result; I have tried it, but should like to hear the opinion of more experienced operators before I state my own] but *we* digress.

When I first mesmerised this patient, I took a book from the table, opened it, shut it, and threw it down; she then took it up, and I observed she did not open it at random as I did, but appeared to look for a particular part, I therefore took up another, remarked the page, 174, closed it, and threw it down; the patient took it up, and let the leaves fall from left to right, stopped and looked at page 174, and then threw it down!

When last entranced I thought I would see if she could write, and the enclosed is the produce: I have not yet excited the organ, every thing is spontaneous.

I have the honour to be, Sir
Your obedient servant,
G. S. Purland.

29, *Mortimer Street.*

[The imitation of the writing is very good indeed, all things considered.]—Ed.

EXTRACT.

SOME NOTES UPON THE HEREDITARY TENDENCY TO MENTAL DISEASE.

By W. A. F. Browne, M D.

Superintendent of the Chrichton Institution for the Insane.

(Continued from page 160.)

The individuals are, at the same time, placed in nearly similar situations, and fall victims to the duties, or pleasures, or anxieties, by which they are surrounded. But there is confessedly a periodicity in nervous disease, and it may extend to the development of hereditary taint. As an illustration of the regular return of mania, I may state that I was the other day consulted respecting a family, of which a father and two sons, arrived at manhood, have been insane, where it appeared that the parent became, for three successive years, raving mad upon the first of March. But, although the different explosions of the malady coincided to a day, the symptoms varied in each attack. He was miserable from penury and impending want in the first; joyous and lavish of the wealth which he actually possessed in the second; and reduced to second childishness in the third and fatal attack.

The family of Elwes, the celebrated miser, affords an example of insanity depending upon the inordinate development of apparently one organ transmitted through two generations. The penurious habits of the mother of Elwes led to gradual self-destruction by starvation; she lost her life in saving a penny. His paternal uncle had no other pursuit but to accumulate, and after having lived surrounded by wealth which he could not enjoy, he died like a beggar, unwept, unhonoured, the possessor of half a million sterling and a coffin. Elwes, the representative of these martyrs to gold, began his career as a gambler, and by those who fail to detect in that course avarice gilded by hope, his disposition is supposed to have been then liberal, and to have undergone a change when he left society, relinquished its pleasures, and condemned himself to unheard of privations in order to save money. But in this early display, as in every subsequent act of life, the incontrollable, the diseased propensity to *hoard* was conspicuous; and even the madness which clouded his latter years was little more than the same feeling roused to extreme excitement, and running into the dread of robbery and spoliation.

There are certain phenomena connected with the appearance of derangement, depending upon extreme or deficient development of particular regions of the brain in successive members of a family, which claim a moral as well as a physiological interest. The man of violent temper and incontrollable passions, which, during a paroxysm of excitement, suspend the operation of reason and conscience, is often succeeded by children who inherit his infirmities and at last become mad. It frequently happens, that, in tracing the history of a case of insanity, the relatives of the patient are declared to have lived and died free from all similar affections, and perhaps to have been distinguished by great sagacity or by brilliancy of imagination. But the inquiry should be carried further: the dispositions of the parents should be ascertained, their principles of action examined, the extent to which the propensities have been indulged determined; and the sum of the conclusions will give, more frequently than what has been hitherto conceived, bursts of rage or habitual irritability in the parent as the remote source of alienation in the child. Those who have witnessed, or analyzed, or felt the manifestations of excessive, unrestrained, or, it may be said, cultivated, Destructiveness, Combativeness, and Self-Esteem, can well appreciate how closely these resemble the symptoms of furious mania. In fact, there can be no doubt that, for the time, the conditions are identical, or that both are states of disease involving irresponsibility. It has not, however, been sufficiently observed, that anger, in other respects besides irrationality and violence, approaches certain other nervous diseases, and may have equally detrimental consequences. There is the sudden development of great muscular power, often attended with rigidity or spasmodic contraction of the muscles, followed by tremor and prostration, sometimes by fainting; there are temporary insensibility to pain, great disturbance of the circulation, and frequently the periodical return of the paroxysms. It is highly probable that the whole of the nervous system sympathizes, under such circumstances, in the disturbance of a part, and that, as a consequence of the morbid intensity of the functions of the base of the brain, great injury is done to the other portions of that organ, and a condition induced which is handed down, and consigns, or may consign, the next generation to the madhouse. This is, at least, a description of the facts. There is a gentleman now under my care, in whose lineage no instance of insanity can be discovered. His

mother died in early youth, his father was regarded as shrewd and intelligent. But the latter was a domestic despot, a man who, from the most ungovernable fury, under the influence of which he assaulted his wife and all around, flung dishes at the cook, &c., giving way to blind destructive delirium, passed to oppressive maudlin kindness, and profuse generosity towards the very victims of his oppression and cruelty. These whirlwinds of passion were called forth by the slightest provocation, were altogether disproportioned to the exciting cause, and were directed indiscriminately to the offender and to all upon whom he dared to wreak his vengeance. This man died sane, according to the liberal or lax interpretation of his friends, but his son is furiously and irrecoverably mad.

IV. There may exist hereditary tendency to mental disease where distant parts are so organised as to act detrimentally upon the brain. The predisposition to insanity may, in this way, be communicated by the hereditary arrest of development—the structural defect or the disproportion of certain parts to the general system—or the disease, debility, or inordinate energy of any organ; the irritation or disturbance of the functions of the parts acting indirectly upon the brain. This is chiefly true as to hereditary enlargement of the heart, which is now recognised as a frequent cause of derangement; but the same observation is applicable to pellagra, scrofula, gout, and other affections, which implicate important organs, are obviously transmissible, and either act as irritants of the nervous system, or, by attacking the brain directly, give rise to insanity, in the same manner as when, by attacking the glands and cartilages, they give rise to pains, swellings, and so forth. According as one or other of these explanations is adopted, it must be concluded either that there is one hereditary tendency, modified by the structure and functions of the parts affected, or that there are two tendencies to disease running collaterally in the same system.

That temperament is hereditary is very obvious, and that madness is more frequently associated with the nervous and bilious than with any other modification of temperament, has been rendered equally so by recent investigation. Were the present an inquiry into the secondary or collateral causes which may influence the development, or even contribute to the propagation and continuation, of hereditary taint, this would be the stage at which to discuss the connection of temperament with transmissible mental qualities, and with the transmission of particular conditions of organization; but it seems better to confine this paper to the indication of the conditions upon which hereditary taint appears to depend, and to reserve such considerations for another opportunity.

Where hereditary tendency, depending upon any of the causes now assigned, exists in families, but is not developed, such exemption may generally be referred to one of three sources:—1. Either, one of the parents has been of robust and pure constitution; or, 2. The natural physical powers and training of the individual exempt have been such as to afford protection; or, 3. His rank, or position, or profession in society, has removed him from the influence of the excitement, fluctuations, and reverses of fortune, which are so fertile of danger. And the re-appearance of madness in a family which has for several generations escaped, may in like manner be traced to intermarriage with a tainted stock, or to circumstances which break down the system and revive the latent poison. The limitation of hereditary predisposition to the males or females of a family may be explained upon similar principles. There are under my care at present two instances of the incursion of insanity in a father and son, while the females of both families enjoy, and have during life enjoyed, perfect mental health. In these cases, the mother possessed and transmitted to her daughters a vigorous constitution. Another striking illustration of this limitation has come under my notice. An eccentric father left three sons and several daughters. The eldest son died in premature old age from apoplexy, preceded by loss of memory and fatuity; the second is notorious for oddity and eccentricity, which emulate disease, and for passion, vindictiveness, and excess, which cannot be distinguished from bruitism; the third is now losing piecemeal his recollection of places, periods, and persons, and is the sport of his own irritability. In his sons the tendency has been displayed in its most distressing form. Several have died in a state of idiocy, and one is now so singular and hypochondriacal, as to be unfitted for the occupation he had chosen. The females of both generations have remained free from all nervous disease. The evidence, of which these examples form a part, countenances the opinion that, in the transmission of qualities, the influence of the mother acts more directly on the female, and that of the father upon the male offspring. Esquirol adds, that madness is more frequently transmitted by the mother than by the father. If it be considered,—*first*, that there are a greater number of females insane, and predisposed to be insane, than males; *secondly*, that from constitution, training, and position, females are much exposed to causes calculated to call this predisposition into activity; and, *thirdly*, that children are, during early education, more exposed to acquire the tone of the mind of the mother than of the father, the proposition is denuded of all indication of paradox, which it at first wears, and becomes a simple announcement of fact. Both parents are rarely affected. In a table of 514 cases, of which 255 were males, and 259 females, in which taint was either acknowledged, or had been traced, only six instances occur in which the father and mother of the patient died mad. From the same table it appears, that the disease descended in 76 from the mother, and in 57 from the father; that in 30 cases two relations were deranged, in 484 only one? and that in only two cases are three generations mentioned as having been so. The sexes of the diseased progenitors stand thus: of twenty degrees of consanguinity enumerated, six were

male, and six female; seven both male and female; and of one the sex is not specified. I have myself compared the sexes of nearly a thousand cases, in which hereditary taint could be traced, and find that the proportions are as follows: of 969 patients treated in various asylums, 440 were were males, and 529 females.

I likewise find, that of a hundred cases of insanity recently treated by me, and of which 59 were males, and 41 females, 36 only were affected with tendency to nervous disease of some kind, 24 of these being males, and 12 females. Of the 36 thus predisposed, the tendency to insanity, without appoplexy, epilepsy, or other nervous disease, had appeared in the families of twelve; the tendency to nervous disease, without insanity, in the families of sixteen; and the tendency to both insanity and nervous disease, in the families of eight. Seventeen appeared to have had one relation affected; fifteen, two relations; two, three relations; one, four relations; and in one instance the number is not stated. Of the same number, there was one case in which a cousin was the relation insane; in two, a son or daughter; in four, uncle or aunt; in four, father and mother; in fourteen, father; in eleven, mother; in sixteen, brother or sister; and in one the relation is not stated.

A patient under the care of my friend Dr. Mackinnon, in Morningside Asylum, affords an example of the more intense forms in which hereditary taint is sometimes displayed. The individual is herself a suicidal maniac; her brother committed suicide; her sister has been threatened with melancholia; her mother, maternal grandmother, and paternal uncle, were all insane.

The length of the stream of hereditary taint has not been traced, nor have the number of generations been observed in which it may appear? indeed, the information upon this, as upon all other branches of the subject, is extremely meagre and defective. I have met with hereditary taint times without number in two, and frequently in three generations; occasionally it has been noted in four successive descents, but the rareness of such observations, except in such instances as the Cretins and Cagots, should not create surprise, as they have hitherto depended exclusively upon personal experience; and as there must have been a thousand motives to conceal, and not one to disclose, the existence of such family misfortunes.

(*To be continued.*)

ANSWERS TO CORRESPONDENTS.

W. J. Portsea.—We do not see how we could, without great impropriety, publish our correspondent's letter. Taking the facts as stated, there can be but one opinion upon the matter, and we quite agree with W. J. that a person who could act thus, richly deserves censure, and exposure. But one who could so act, would of course deny the whole matter, and thus our Journal would be at once made an arena for angry personal controversy. It is not any part of our plan, to watch, or punish, the delinquencies of individual phrenologists, even though they may bear somewhat upon the advancement of the science. A Journal of this kind is understood to be, and ought to be denoted, as exclusively as possible, to Science only. Were we once to open the door to statements of this kind, our hands would soon be full of them. We do not pass any opinion on the facts of the case, because the statement is exparte, but our correspondent appears to act in a straightforward and open manner.

A Subscriber's Communication does not come sufficiently within the plan of a work of this kind. Poetical illustrations are all very well as forming part of an argument, but these are illustrations without argument, and morever rather long. A volume might be filled with such, and yet nothing proved. We are much obliged to our correspondent, and regret the trouble he has been at.

S. Spurrell.—Mr. Spurrell's communication is an *advertisement.* Will he let us know whether he will have it inserted as such? His letter was incorrectly addressed, as he will see by a reference at the bottom of this page,

A. Subscriber.—Has been received and will appear next week.

A Lundin.—N. Hynes.—Our answers to these Gentlemen, have been found too long for this number.

ERRATTA IN MR. LOWE'S PAPER No. 47.

Page 99, Line 20, the reference to the numbers of the Phrenological Journal, belongs to this line. Page 100, the first note in this page refers to the conclusion of the 31st section of page 99. Page 101, 2nd column, line 12 from the bottom, omit the words *no means.* Line 8 from the bottom, for *have* read *hear.* Page 102, 1st column, line 14, for *connection* read *conjecture.* Line 19, for *speculation* read *operation.* Line 8 from bottom, for *require* read *acquire.*

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A COMPLETE SYSTEM OF PHRENOLOGY.

INDIVIDUALITY—(*Continued*).

SOME regard it merely as the memory of substances. But there must certainly be the perception before there can be memory of any kind whatever. The greatest difficulty in deciding upon the particular function of an organ is, that so few acts result from the activity of a single one, and hence different individuals refer the act to different single organs, when perhaps they result from several. Allowing this, we can understand how individuality may have been said to give the power of personifying abstractions, by combining Inactivity with Form, Size, Ideality, Comparison, and indeed all the intellectual faculties, and many of the propellants; from what we have said, we trust that much, which is in direct relation to the development of this organ, is clear and distinct; and we must wait for further experience to enable us to decide all the phases of intellectuality which depend on this power, or the exact amount of influence it exercises in compound results. The next organ is that of Form.

FORM.

This organ No. 23, is situated on each side of the small bone called the *Crista Galli* which may be seen in a skull, just behind the top of the nose. When the organ is large the eyes appear to be pushed towards the external angle of the orbit, and there is a considerable space between the ball of the eye and the internal angle of the orbit. There is also a considerable width and fullness on each side the root of the nose, it contributes one of the peculiarities recognised in what are called Chinese eyes. When small, the eyes appear set close together, and the internal angles rather sunk or depressed.

The primitive function as generally recognised is the perception, and memory of forms in general, whether physiognomical, or of any other kind, it being the form or configuration of an individual's face or his features, which constitutes their peculiarity and individuality, so far as this portion of their whole figure is concerned. We may easily understand how Gall might empirically come to the conclusion that there was an organ which took cognisance of the physiognomical forms of individuals, but this organ is equally manifested and useful in the study of all the branches of natural history. In combination with individuality the range of its action is most extensive. Individuality perceives as a whole the existence. Form may be said to enter into the details as to the form or shape of the individual and its parts. But this organ does not take any cognisance of dimension. We may see then how important a faculty it is, not only to the painter and sculptor, but also to the author, geologist, mineralogist, chemist, &c., &c. It is one of the most essential faculties to constitute a good practical phrenologist, this organ being deficient in an individual he will maintain the impossibility of distinguishing the different forms of head according to the greater or less development of the individual organs. It is also very useful to the physician and surgeon, the one observes by it the different forms of the features; in other words, the expressions of the countenance resulting from different diseases. The surgeon is aided by this power in correctly estimating the normal and abnormal structure of the different parts of the human subject. It has

been remarked by some authors that this, as well as the preceding organ, is less developed in the northern races than it is generally observed in the natives of France, and towards the southern hemisphere. Examples of a large development of this organ will be found in most celebrated painters, sculptors, and natural historians. Those artists who, in spite of great general talent, fail in making correct likenesses, will be found to possess this organ relatively smaller than the other artistical faculties.

This organ is large in many animals, the dog especially recognises often, at a glance, an individual he may not have seen even for years. Many facts might easily be collected to prove the existence of this faculty in the animal kingdom. Generally indeed many writers have given animals and mere savages, credit for greater power (instinct as they have denominated it) in what are really the manifestations of the perceptive facultiesthan is possessed by civilised man.

SIZE.

This organ, No. 24, is situated above and external of the preceding organ at the internal and superior angle of the eyebrow. In tracing the course of these organs we must follow an eccentric line from the centre externally, when this organ is large, the internal angle of the eyebrow is frequently pushed upwards; but the organs in this region are in no way connected with the eyebrow, but occasionally the shape of it is modified, if not given by the different degrees of development of the organs under and about the superciliary ridge.

This faculty may be called by excellence the geometrical faculty. It is evidently a distinct power from form. The size of objects may be the same in any direction, but the form may be different, and *vice versa*, the forms may be alike and the size very different. The perception of distance, as well as what is generally included in the term size, is no doubt referable to this power. Extension in this sense would perhaps be a better name for the organ. Perspective is the law of size or proportion in distance, and this is one of the direct manifestations of this faculty. Some artists who are deficient in this faculty cannot draw in perspective, and the proportion in their pictures is always more or less faulty, it gives what is often called a good eye, that is to say, an individual with a large organ of size, estimates, correctly, innately, distance, height and size, or proportion in general. It is a most important faculty and will be found largely developed in geometricians, civil and military, engineers, artists, architects; it aids the sportsman in calculating distance equally as the general who has to make a like estimate of the ground he has to arrange his men on in columns, squares, &c. In games, such as billiards, bowls, &c. other circumstances being equal the possession of a powerful organ of size will be found to give precision and skill. Many species of animals manifest in an extraordinary degree the tact or instinct resulting from this power. Birds and beasts of prey estimate with the greatest precision the distance between them and the object they desire to seize; and in many other instances it may be observed that the instinct of animals in this respect even excels the ingenuity of man. Examples of this power in a strong and weak degree may be readily observed among all classes of society no where more successfully than in the workshop of the mechanic. While one man can draw a circle, or carry, as the phrase is, the size of a thing in his eye, another one, after most carefully measuring ever part, and taking all the dimensions of an object fails in making one the same size. The fact is, although to some extent, rules may aid or even modify a natural aptitude, yet never can art compensate for a deficiency of innate power in an individual.

WEIGHT.

The organ of weight, No. 25, is external of that of size, about one third of the extent of the superciliary ridge from the nose; sometimes the eyebrow is forced up by this organ being under it, but in many instances owing to some variety in the general configuration of the eyebrow, this organ causes a depression downwards of the eyebrow in this position.

The organ of Weight might with more propriety be called the sense of resistance, or gravitation, or indeed perpendicularity, or density, in fact almost any other word would give as correct a notion of the function of this power as the one by which it is recognised by phrenologists. All bodies certainly possess weight, that is, are more or less heavy without regard to their form or size, and no doubt this faculty gives the power of estimating from the appearance of the object its weight, but it does a great deal more, it appears to give an innate perception of the laws of gravitation and the power of preserving the centre of gravity, which, in different individuals, will be found relative to the size and power of this organ; it enables a child to walk alone at an early age, that is, as soon as the limbs are strong enough; it contributes to excellence in combination with size in all exercises and arts where correct notions of distance, resistance, equilibrium, or perpendicularity are required, as in engineering, the application of the mechanical forces, rope-dancing, horse-riding, skating, &c. &c. It is generally large in prize-fighters, and enables them to calculate with precision the force requisite to produce a given effect. This organ is easily affected by alcoholic drinks and from several other causes, and then the equilibrium is deranged, the centre of graviiy is lost, and the individual staggers. Several well recorded cases are known of this organ being diseased. Hunter, the celebrated surgeon, appears to have been subject to occasional paroxysms of this sort; and Sir Everard Home describing the symptoms, says, " his own feelings *did not give him information concerning the centre of gravity.* Some men never learn to ride well. Walter Scott says James the 6th rode like " a sack of oats." Some, who draw well, cannot make perpendicular lines without ruling, their houses are always falling down.

(*To be continued.*)

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We perceive by Mr. Deseret's answer to our former criticism that we have taken a correct view of his theory of the function of the organ of Language, and that the startling conclusions which we have deduced from that theory are acknowledged by him to be "quite philosophical and correct." So far then, we understand each other, and we are glad to meet an antagonist who defends himself with such vigour, and who boldly pushes out his views to all their legitimate consequences. It is by this means only that controversies can yield their full benefit, and that truth is likely to be speedily attained. We shall now endeavour to lay before Mr. Deseret some other consequences of his doctrine, also a little startling, and we trust he will adopt them with the same frankness, or prove that we have erroneously deduced them from his statements.

The whole of Mr. Deseret's doctrine is embraced, according to his own statement, in the proposition. "That the organ called Language possesses the function of imparting outwardly the natural expression of the various faculties with which we are endowed, and likewise of recognizing this expression in others." He gives the analysis of the function in these terms: "According to my first position then, the organ called Language, takes cognizance of a class of relations, viz:—the relations of *sign*, the relations between our perceptions, emotions, and reflections, and their external manifestation." Elsewhere he says, the preceding analysis "comprehends the *outward* manifestation of every perception, emotion, or relation, which arises in the mind." Now, we will admit, for the moment, what we shall presently deny, that there is such a primitive faculty as is here spoken of, and that its elementary function is to perceive *Sign*—the relation between internal feeling and external manifestation. But to perceive the relation between the sign, and the thing signified is a very different affair from creating that sign. Mr. Deseret's own organ of Language, for instance, perceives, according to his theory, the relation between the feelings of others and the external acts which manifest those feelings, but it does not create those external acts. When he sees a person smile, it is not his own organ of Language that produces that smile, but the organ of Language of the individual who smiles. Thus he is continually *perceiving* external manifestations—natural language with the formation of which he has nothing to do, so that the *perception* of the signs, and the *formation* of the signs—"the *imparting outwardly* the natural expression of the various (internal) faculties" and the *perception* of these outward manifestations, are in myriads of cases, totally distinct processes, the one going on in the body of one individual, and the other in the body of an other individual. It is *demonstrated* then, by these facts, that there is no *a priori* necessity that the organ which *perceives* natural language should *form* natural language. Consequently, if it be asserted that it does so in any case, the assertion requires to be supported by special evidence. When we look at that which has been adduced we find it amount to this, that many persons who have manifested the power of giving vivid expression to their feelings and thoughts have had this particular organ large, and that some others who are said to have had but feeble power in this respect, had the organ small. All beyond this has been assertion only. From the very nature of the case, it readily appears, that it is quite possible that these accordances may be only coincidences. Such an amount of evidences is not sufficient to establish even probability, were there nothing whatever to be urged against it. But objections of all kinds apply to it.

Before we place, in a more vivid point of view, the twofold nature of the function we are considering, we will see how far the analogy of other intellectual organs is favourable to Mr. Deseret's theory. Mr. Deseret instances the cases of the organs of Time, Place, Causality, and Comparison, as having functions analogous to what he has attributed to that of Language. But the functions of these organs are merely to perceive and remember their different objects, not to create them. The organ of Locality does not create localities, it merely perceives them. Comparison does not make the objects compared. Causality is employed in observing causes and effects, not in creating them. All organs, as well as all other agencies in the universe, may be occasionally instrumental in creating circumstances of time and place, resemblances and effects; but all this has nothing to do with their phrenological functions as connected with this discussion. In this sense, they are merely recipients and recorders of what takes place within their sphere of

action. All the intellectual organs have been ostensibly considered by phrenologists as organs of perception and memory only. Some vague notions have been put forth in reference to the considerative or reflective power of a few of them, and in practice they have been regarded as giving desire, love, &c., though contradistinguished in theory from the affective organs, properly so called; but we are not aware that any one has attributed to them functions anything like analogous to that which Mr. Deseret has assigned to his organ of Language. Much that has been said in reference to the functions of these organs, is in the highest degree unphilosophical and unphrenological; but the science, with all its present imperfections, offers nothing to countenance the particular view we are now considering; for this organ of Language is made not only to perceive natural language, but actually to create it, in all cases whatever. It creates the very objects that call it into action. Every organ has an appropriate excitant; it is called into action by the presence of that excitant, whether actual or ideal, consequently the excitant must exist before the organ can be acted upon. But this organ first calls into existence a host of the most complex muscular movements, and then perceives them; first creates signs, and then perceives them. This is surely the same as saying that the external senses first create sounds, and lights and colours, and odours, &c., and then perceive them; that Causality first creates effects, and then perceives them, &c., &c. Mr. Deseret cannot claim the support of analogy in this case at least. We repeat, no organ can act until it is acted upon: according to the principles of Phrenology, that which acts upon an organ, that which excites it, is the quality or relation which the mind is destined to perceive through the action of the organ. Consequently the action of the organ is always subsequent to the existence of the excitant, as the mental perception is subsequent to the action of the organ. This is the invariable and inevitable sequence. It matters not what may be the intermediate agency, whether light, electricity, magnetism, or some unknown ethereal fluid; that which the mind ultimately perceives, has had an existence anterior to the action of the mental organ. Primarily, each internal organ has been called into action by something in external nature, which something acts upon the external senses, either directly, as in the case of touch, and flavour, or through the medium of some ethereal fluid, as in the case of light, sound, and odour; and the senses act upon the internal organs in the brain, from whose action results the mental consciousness of the existence and presence of the first excitant. Every organ has been primarily called into action by the agency of the external senses, and these have been called into action by something external to themselves again. Afterwards, indeed, by the wonderful arrangements whence result association and memory, the effects produced upon the internal organs are variously repeated, but the primary stimulus comes from without. But according to Mr. Deseret's theory, we should have to believe that one particular organ departs from the analogy of all the others, and instead of being called into action by some appropriate excitant in external nature, first sets to work, how, or why, no one can conceive, and puts in motion a most complex apparatus of nerves, muscles, bones, and fluids, by whose means it produces a vast variety of corporeal movements, all of which are in such wonderful harmony with the action of the other mental organs, that they are understood at once, and instinctively, not only by other human beings, but even by the inferior animals. When the organ of Language has done all this, then it has something to perceive, something to excite it, not before. We cannot imagine that Mr. Deseret has foreseen these consequences of his theory.

Mr. Deseret now says, that this organ takes cognizance of the relation of *sign* merely, the relation between internal feeling and external action. According to this, one set of organs produce internal feelings; somehow or other, various external actions take place in consequence; these external actions are perceived by the organs of Form, Size, &c., &c., and this organ merely perceives the *relation* between them and the internal feelings, merely perceives that there is some *connection* between the two—that the external *indicate* the internal. But if this be all that it does, why call it the organ of Natural language? Natural language consists in the various muscular movements that accompany feeling. Mr. Deseret acknowledges that these movements are perceived by the aggregate of the intellectual faculties, and that his organ only sees their meaning. His organ, then, is but one of the means by which we perceive natural language. Its perception is the complex result of the whole mental action, and no one organ is entitled to be called the organ of natural language.

Again, signs are different from their meaning.

Signs are actual existences; their meaning a mental inference. This organ perceives the latter only; it does not perceive signs at all; every element in these signs can be shewn to come within the sphere of some other intellectual organ. How, then, can this organ produce what it does not even perceive? How can it "impart outwardly the natural expression of the various faculties with which we are endowed, and likewise *recognize* this expression in others?" In other words, how can it call into existence the whole natural language, and perceive similar natural language when manifested by others, and yet not perceive anything more than the connection between the sign and the thing signified? Mr. Deseret is evidently in contradiction with himself.

Again; of what does natural language consist? Of smiles, laughter, frowns, and other movements of the muscles of the face; of tears, cries, and sounds of various kinds; movements of the head, trunk, and limbs; of smelling, tasting touching, eating, drinking, fighting, praying, &c., &c., &c.; in a word, rigorously speaking, natural language comprises all the muscular movements, voluntary and involuntary, that result from the action of the internal organs; in fact, all the actions of living beings. According to Mr. Deseret, not one of these acts can take place without this organ of Language, which nevertheless does not perceive these acts, but only the element of relation between them and the internal feelings. But this element must exist, so to speak, before it is perceived. It cannot be called into existence by an organ which remains inactive until excited by it, neither has it any existence before the sign with which it is connected, has existence. As the action of the organ of Language is subsequent to the one existence, it must, *a fortiori*, be subsequent to the other, nor can it create anything before it is in action. According to Mr. Deseret, this organ would have to act before that which is to make it act, is in existence.

Again; Mr. Deseret's view seems to require that natural language should be always subsequent to reflection, and to the desire of manifesting our feelings. But facts are entirely opposed to this conclusion. Primarily, every manifestation of natural language must have been entirely instinctive, and anterior to experience or volition. Subsequently, it is often, at least, instinctive, and some portions of it always so. For instance: a person is greatly frightened; the heart palpitates, and a sudden palor overspreads the features. Here are two manifestations of natural language. They are clearly instantaneous and involuntary. No effort of the mind can by any possibility produce them, unless the emotion of fear be previously felt; and when this emotion has been strongly felt, they follow inevitably, and no effort of the mind can prevent their following. They do not occur because the mind perceives the relation between them and the emotion of fear, for they have taken place before the mind has any such thought, and often while the mind remains in profound ignorance of their existence. A man born blind has no notion at all of the change of complexion produced by fear; neither is any one conscious of the existence of this palor till some spectator gives the information, or till he has seen his face reflected in a mirror. It is the same with a great portion of the natural language of all the feelings. The individual who produces it is in absolute ignorance of many of the effects that have taken place. His consciousness has nothing whatever to do with them; nor when he is made aware of their existence, or when his previous experience has led him to suspect it can, his most energetic volitions interfere with some of them. According to the principles of mechanics, no organ can produce effects unless it be in action, nor powerful effects unless it be in vivid action. According to the principles of Phrenology, no mental organ can be in moderate, much less vivid action, without the mind perceiving the emotion or idea of which it is the instrument. During life, perception is the inevitable consequence of the action of the mental organs. But here are a multitude of external acts of which the mind has no consciousness, of which it *cannot* have any *direct* consciousness, of many of which it ever remains ignorant; these, then, *cannot* result from a mental organ whose function is to perceive the relation which these acts bear to internal feelings, since, as this relation is not perceived, the organ cannot have any action referring to them. If it had, the relation must have been perceived; if it has not, it can not have produced them, for an inactive organ can produce no phenomena. If most, or rather all of these acts *often* take place without any concurrence of this organ, and others *always* do so, it is clear that they must have an entirely different source from this organ. If they can be produced in absolute perfection without the possibility of any assistance from this organ, and usually are so produced, it is clear, that its direct aid in other cases would be a needless superfluity,

and as nature does nothing in vain, we are entitled to conclude that this organ has no *direct* control over natural language, and that if it even affec's its manifestation, it is in the same indirect mode that almost every other intellectual organ may do. Thus, then, it is *demonstrated* by various trains of arguments, that one of Mr. Deseret's positions is entirely false. If we turn to facts, every thing bears out the more abstract reasoning. We find, in all the ranges of animals on which comparisons can be made, that the vividness of the natural language is exactly proportionate to the vividness of the feelings, whatever may be the development of the portion of the brain assigned as the organ of natural language, and that the natural language is often most vivid, where this portion is very moderate, or small in development. A pig, for instance, which is a very stupid animal, with small depressed eyes, manifests its prominent feelings as perfectly as a parrot, a monkey, or a man can manifest theirs. A new-born infant manifests all the feelings it possesses, to the utmost extent in which it possesses them, and manifests some of them in as complete perfection as the greatest genius among men can display any of his; and yet we have not the least reason for supposing that it has even the faintest idea of the relation between these external acts and its internal feelings. At all events, it is certain that the acts were performed before the relation was perceived. The London flower-girls, who, in summer, may be met with in such numbers, in the principal thoroughfares of the West-end, very generally approximate to a certain type of head and face; the head is rather broad and low, the face broad, short, and rapidly tapering to the chin, the eyes small, and very depressed, the lids and orbits elongated, and presenting "the half-shut glances of Cathay." Now we will venture to assert, that the brightest and most Juno-eyed of the dames at whose carriage door they offer their flowers, could not manifest the natural language of anxious entreaty more vividly than these poor girls, or give a more touching representation of the distress which, sometimes, they no doubt experience, and which, possibly, they sometimes only simulate. Illustrations on this point might be immensely multiplied were it necessary, but we must forbear, as we have hardly left ourselves room, without too much extending the limits of our article, to examine Mr. Deseret's second position, viz., that the perception of the relation of sign is an elementary perception, requiring for its manifestation a distinct cerebral organ.

What is meant by the relation of sign in this case? Simply that one thing indicates the existence of an other: that there is a connection between them. A blush is the sign or natural language of shame: what relation is there between it and shame? That merely of sequence and mechanical connection. A certain organ is in action, and the feeling of shame arises. This organ is in connection with certain nerves, these with certain muscles. When the organ acts it excites the nerves, these excite the muscles, and the muscles propel an extra quantity of blood to the face. The connection is precisely the same as that which exists between the moving power at one extremity of a machine, and the fly-wheel at the other. It is a connection of mechanism, *causation*, artistic sequence, and nothing else. There is no connection whatever between any portion of natural language and the feelings it indicates, other than that which exists between the anterior and subsequent portions of every species of machinery. Consequently, if the human mechanism were laid open to our inspection, and completely within the range of our perception it is self-evident that the faculties which would enable us to perceive sequence and sign in ordinary machinery, would be perfectly adequate for their perception in the human machinery, for the fundamental principles and laws of mechanism are the same in all cases whatever. But as the human mechanism is not open to our view, as we cannot possibly trace the succession of actions, and consequently cannot tell, by ordinary means, to what source any particular effect ought to be traced, Nature has provided a peculiar mode by which we may obtain this indispensable information. She has established media of communication by which movements in one organization are calculated to produce corresponding movements in every other organization of a similar kind, placed within a certain sphere of action. Thus if two individuals of harmonious disposition are together, every external indication of emotion in the one produces an appropriate emotion in the mind of the other. The social organs of one are excited, an external effect follows, by the action of light this external effect produces peculiar movements in the optic apparatus of the other; these optic movements excite the social organs, and a corresponding feeling is experienced. Both organisms are moving harmoniously. If on the

other hand one manifests pain, the optic apparatus is otherwise affected, and this time rouses not only the social organs, but also the organ of benevolence, and an emotion of pity succeeds. Sometimes the organs in action in one mind excite the same organs in an other, sometimes different organs as the case may be. All these things take place instinctively, inevitably, and mechanically, and the mind feeling certain emotions at the time that it perceives certain actions, learns to connect both, with ideas of sequence and causation. In the same manner, it refers the external actions that affect it to internal movements in the person acting, and the inference is natural that they spring from feelings similar to, or contrasting with those which they excite. In a word, all our ideas of connection between one portion of the phenomena and the other are obtained in precisely the same manner as we learn that fire will burn us, and the violent impulse of hard bodies hurt us. The idea of sign as applicable to natural language is in no possible respect distinct from that of sequence and causation. The terms are perfectly convertible There is not the shadow of a reason for supposing that an extra faculty is required for perceiving what Mr. Deseret calls the relation of sign. The only relations in the case are successive organic movements, the last in the series being, of necessity, the consequence and the sign of the first, as well as of every intermediate one.

There is another argument more conclusive, if possible, than the above. It is this:—Every organ is capable of a vast gradation in action, from the most gentle to the most violent. These must be called into existence by gradations in the natural excitants of the organs. It does not follow that every excitant which admits of gradations must be primitive, and require a distinct organ; but it does follow that that can not be the appropriate excitant of any organ, much less a primitive excitant, which does not admit of gradations, since it cannot produce the variations of intensity of which all organs are, in the nature of things, capable. Thus, for instance, distance has gradations, and the organ that perceives it is variously affected by different distances. So with duration, with sound, with light, with pressure. Approbation has its gradations, from the faintest to the most complete, and the effects produced on the person approved of, are proportionately varied. So with elevation, so with danger, so with various kinds of love, &c., &c. But if we were to speak of an organ of the love of children, it is clear that we should not speak analytically, since the idea of a child admits not of gradation. When, however, we speak of an organ which gives an interest in feebleness, or childhood, we may be speaking analytically, since these have gradations. So there cannot be an organ of the love of sex merely, since sex has no gradations, though there may be many organs by which we are led to take an interest in persons of opposite sex. Now, the perception of sign admits of no gradations. A thing is a sign, or it is not a sign, that is all that can be said about it. Were there an organ of sign, it would be capable of different degrees of action; as organic action varies in intensity, so are the mental effects different; but we know nothing of gradation in reference to this perception. We speak not of any difference in the distinctness of a perception; a short distance is as visible as a long one—a faint approval may be as manifest as the most unbounded applause. It will not do to offer as an opposition to this reasoning, the case of any particular organ. This argument is an argument of necessity, and if the function assigned to any organ be in opposition to it, it only follows that the true function of that organ remains yet to be discovered.

There is a host of other arguments, objections, and replies, which we could bring forward, did our limits permit. As it is, we think we have superabundantly proved our assertion, that Mr. Deseret's opinions "cannot receive a moment's tolerance when submitted to the test of a rigorous analysis." We shall be happy to receive any communication from Mr. Deseret in reply; and trusting that he will feel equally anxious with ourselves to carry on this discussion in a purely scientific spirit, we shall, with the greatest pleasure afford him every facility in our power for fully developing and enforcing his views.

MESMERIC INTELLIGENCE.

On Monday evening, the 15th of January, Mr. Vernon gave his second and concluding lecture, at the theatre of the Mary-le-bone Institution, to an overflowing audience. We were unable to attend, but we learn from different quarters, that everything went on very satisfactorily, and that the experiments were far more striking and successful than on the former occasion. The audience, of course, was gratified in proportion. On the following Thursday, Mr. Vernon appeared again before a Greenwich audience, according to the arrangements alluded to in our last. On this occasion no one was

admitted except conditionally, and by ticket. Strict order was enforced, judges and a chairman appointed, and no one else allowed to address the meeting, or even ask questions, except through the chairman. The theatre was, nevertheless, crowded, and numbers were unable to obtain admission. The experiments were most successful. Amongst them two may be particularized. The pulse of the patient was raised sixty beats in a minute, from 80 to 140. This fact was unquestioned. Mr. Vernon then offered to lower it to twelve beats in a minute. But the three judges, who were medical men, considered the experiment far too dangerous. They were all opposed to Mesmerism, but their prudence on the occasion shewed that their scepticism had been shaken. The experiment, consequently, was not permitted. Then, the patient being a *clairvoyant*, was subjected to the test of reading with her eyes closed. One of the judges held his fingers over the eyes in such a manner, that seeing in the natural way was perfectly impossible. In this condition she read the title page of a book held at a little distance in front of her. The experiment was unequivocal, and indisputable, and produced, naturally enough, a great effect upon the audience.

At the termination of the experiments, the judges were called upon for their decision. The first who spoke, very candidly and decidedly said, that he had come there a complete sceptic, but now he was satisfied that there *was* something in mesmerism. The second said, he certainly thought that there was something in it, but that he should not wonder if, after all, it turned out to be nothing. This decision, which, it must be confessed, is original, if not very profound, seemed more satisfactory to the audience than the propounder of it probably wished it to be. The third gentleman was more unfortunate still than his predecessor. He had evidently no objection to offer, that was in the least satisfactory to his own mind, neither could he bring himself to give an opinion in favour of mesmerism; and so, in this conflict of feeling, trying to reconcile contradictions, he made, of course, a very lame affair of what he said, and ultimately broke down. In fact, to every unprejudiced person in the audience, the vain efforts of these two last gentlemen to cover their defeat, must have told as much in favour of mesmerism, as the candid acknowledgment of the first speaker. In every respect the results of the evening were a signal triumph to the lecturer, on the very spot where he had been so unfairly and boisterously opposed.

A few evenings back, we had the pleasure of witnessing some very interesting experiments in a private party. The patient was a remarkably fine child, apparently about 10 or 11 years old, a girl, of an active and intellectual temperament, and a slight and elegant formation. She was mesmerized at a distance, in a few minutes, and after a movement or two of the lecturer to diminish the first torpor, she displayed a great exaltation of almost all the mental powers, ran about the room, romped and chatted, and manifested a high degree of wit and shrewdness, which, connected with the peculiarities of her dreaming state, were often singularly interesting. To one who had never seen the child before, it would be difficult to disconnect the idea of conscious acting from many of her proceedings, the mind seemed so much awake. Among the first experiments tried, was to read with the eyes covered. We were requested to conduct it ourselves; and it seemed to us at the time, not merely a failure, but a glaring evidence of deception. We held our fingers over the eyes very tightly, and pressed very closely together. The patient made great, but ineffectual efforts to read. The eyes were rolling, and it seemed to us that the patient tried, and actually opened her eyelids. She complained of being inconvenienced by the pressure, and we relaxed it, still keeping the fingers as close as possible together. She tried in vain. We then opened the fingers a little and she read easily—closed them, and she failed; this was several times repeated, with the same results. At last the patient perceived that we were practising with her, and she grew dissatisfied, and refused to proceed. Her eyes were then bandaged with a silk handkerchief, but she could see nothing, though she made repeated efforts. At last she told her mesmerizer that she would not read for us at all—that she did not like us—and that was the fact of the matter. He explained to the company the neutralizing effects of scepticism, all which, of course, we were ready to admit, and the patient was quieted for a short time. In point of fact, we were not, in the first instance, in the least sceptical; but the progress of the experiment satisfied us that the patient was practising deception, and our feelings, of course, re-acted painfully on her mind. We had no doubt about her being in the mesmeric sleep; but mesmerizers are aware that patients often practise deception in this condition, which deception, however, is as much a part of the state as anything else, and for which they are no more responsible than the insane are for their irregularities. This was the conclusion we came to; subsequent events proved it altogether erroneous. After several other experiments had been performed, the mesmerizer again proposed to her to read with some one else. She tried, and succeeded. The person was satisfied that the eyes were perfectly closed. Others then tried; she read, and they were equally convinced. The mesmerizer would not be contented until we had succeeded. He assured the patient that we were not at all sceptical—that we were ourselves mesmerizers, &c., and she consented. A few soothing words restored us to perfect favour, and our reconciliation was characterized by all the affectionate ardour of childhood. By this time we had discovered the cause of our previous failure. The patient could see while her eyelids were perfectly closed, but she could not see without light coming to them, nor through other opaque bodies. Our fingers had been held so close, that the light could not penetrate in any sufficient quantity. We had observed that the patient always sought a strong light, but at the same time

invariably and instinctively covered her eyes with her own fingers when she wanted to look closely at any thing, or wished to find out any particular person in the room. It seemed that she saw best when the light fell only on some portions of the eyelids. In this second experiment we took care to keep the eyes closed, without so totally excluding the light from the lids, and she read easily. A lady who was still unsatisfied, followed us, with the same results; she declared that she kept the eyelids down perfectly, and that she was convinced in spite of herself. The experiment was tried by six or seven different parties, and all were satisfied. We believe now that the child never opened her eyes from the time she was mesmerized till she was freed from the influence.

Experiments were tried on taste. The operator cut up some pieces of rhubarb and gave them to the patient: she eat them eagerly. Then some loose tobacco, was dispatched in the same way. Presently she complained that he had taken away the pleasant taste of these things and given her a very nasty taste. When asked what it was, she replied it was like rhubarb, what else? oh the other was like snuff. A portion of Alimentiveness was touched and she complained of thirst. A glass of water was given her and she drank part of it, complaining at the same time that her mesmeriser was only tantalising her with an empty glass. He then drank the remainder himself, and she was satisfied. Afterwards he drank a glass of spirits, and she complained of its disagreeable taste, and asked for water instead. In these experiments nothing was said by the operator, all his effects were produced mentally, and they were striking and unequivocal.

A trial was then made of the patient's strength. She was asked if she could lift up a certain gentleman who weighs between nine and ten stone. She raised him up two or three times in rapid succession, to his unbounded astonishment, and the consequent amusement of the company. He states that he seemed to be raised almost without an effort. Certainly no gentleman in the room could have raised him more easily, if so easily.

Finally, the experiment of carrying the patient on a mental journey was tried. The lady put in communication with her was quite unused to any thing of the kind, and therefore the experiment was very imperfectly conducted. Still it was quite successful. The lady declared that the child had described accurately some apartments in Paris to which she had mentally taken her. Very few leading questions were put, and many of the principal descriptions were volunteered and very minute. It was evident that the child was in an admirable condition for such an experiment. Altogether these experiments were very interesting and satisfactory, and from all the circumstances of the case, as well as from our intimate acquaintance with the operator, we can vouch for their being, in every respect, fair, and legitimate.

CORRESPONDENCE.

THE FUNCTIONS OF THE CEREBRAL SUBSTANCES.

To the Editor of the People's Phrenological Journal.

SIR,—As my communications respecting the functions of the two substances of the brain are mentioned by several of your correspondents, as containing views detrimental to the science of phrenology, allow me to make a few remarks by way of explanation. At present, I have merely stated my opinions respecting these substances, and endeavoured to show some reasonable facts to substantiate them—I have now to explain, that as far as the establishment of phrenological truth is concerned, instead of being detrimental, they are in favour of one of its fundamental principles. It is folly if we meet with difficulties to endeavour to stifle them, merely because they will not admit of an instant explanation: we ought, by study and reflection, to endeavour to overcome these apparent obstacles. Truth will triumph over error; and if the present views of cerebral physiologists, with respect to the functions of the substances of the brain, are correct, investigation will tend to further establish their truth, and give them more faith in their deductions. Let it not be thought the present subject is of trivial importance; on the contrary, it is of the weightiest moment, as one of the fundamental principles of the sublime science rests upon the establishment of this fact. Allowing that the cortical is the essential mental element, let us see whether such an opinion is destructive to Phrenology.

The argument commenced in this journal with respect to the size of forehead, plainly shews that, *absolutely*, size is not the criterion of mental power. The energy of a brain can only be decided by a consideration of the relative development of each organ. Let it not be supposed I argue that a large brain is not preferable to a small one; I merely contend that, solely, it is no criterion of the *intensity* of its operations. Nevertheless, a large brain is of importance, as it presents a greater number of convolutions, and thus affords a greater *extent of the cortical surface.* This will tend to unravel the mystery which practical phrenologists often meet with, viz., a small head, manifesting high intellectual power. A small brain *may* have numerous convolutions, and thus possess an extent of the cortical substance, which will enable it to acheive that which appears little less than an impossibility to those phrenologists who consider that great mental power can *only* be manifested by a corresponding size. The beauty of Phrenology depends upon its *practical utility*, and its practical utility in a great measure depends upon a parallelism being established between the bones of the cranium, and the seat of the mind. The cranial bones *are not* formed exactly according to the brain; if they were, we should have a surface as convoluted as the cerebral mass. Such a configuration is prevented by the various maters which envelope the brain, so that the skull is in fact moulded according to the *eminences* of the cerebral convolutions, which, when in action, palpitate against the maters,* the outermost of which, being hard-

* See case of exposure of brain, and its movements during functional activity. Combes "Notes on the United States of

or then the horny substance, is able, with greater facility, to impress and form the various protuberances on the bones of the cranium. These eminences are formed of the cortical, or cineritious matter. Now, if the mental manifestations emanate from the *medullary matter*, it must be evident that it does not affect the conformation of the skull, in as much as it is covered by the cortical, or glandulous matter, and from which the cranial bones receive their ultimate form. If it can be proved that this outer substance is the formation from whence the mental manifestations proceed, then there will be grounds for saying, that the external shape of the bones depends upon the form of the organ of the mind: otherwise, we have no facts—no authority for asserting, that the formation which generates volition, imparts its shape to the skull. Many circumstances could be advanced, to prove that the function of the white, or medullary matter, is distinct from that of the cortical, and that it is employed in generating a nervous energy, which supplies the physical parts, besides acting as a means of *conveying* the sensations and perceptions to the cortical; in fact, serving in a manner analogous to the nerves. The medullary substance of the brain, is similar in its structure to that which forms the principal part of the *Medulla Spinalis*, the source of the excito-motory power. While this close similarity exists between the component substances of these two centres of the nervous system, the cortical is totally different. It cannot, therefore, be reasonably argued, that they *both* perform the *same* function; and if it be maintained that the medullary fulfils the *most important* of the two, or, in fact, that it is the seat of mind, we shake the foundation on which we ground the practical utility of the whole science, for we then destroy the parallelism which is supposed to exist between the *seat of the mind*, and the *bones of the skull*.

Most cerebral physiologists, especially those acquainted with phrenological deductions, admit that the principal parts engaged in the operations of the mental powers, are the convolutions. True, "Bichat and Sprengal doubt, whether the *superior part of the brain*, or the circumvolutions of the hemispheres, contributed in any respect to the moral and intellectual functions. These two authors, and their followers, go so far as to maintain, that we might remove large portions of these parts, without the faculties being impaired." * But while we have the assertions of these two anatomists on one side, we have the testimony (based on extensive observation, and a considerable number of facts,) of such men as Gall and Spurzheim on the other, there can be little question which class of writers deserve the most credit. It has also been shewn, that as the mental manifestations increase, so also the convolutions increase in number, or *relatively* † extend in size. Professor Tiedemann, an opponent to Phrenology, and whose authority, therefore, is of value, as it cannot be expected to be prejudiced in favour of the science, has proved this fact by an extensive examination of comparative brains. Now, admitting then that the degree of intelligence depends upon the number and development of its convolutions, it must follow that it also depends upon the extent of surface of the cortical substance, for this covers (but not as Gall affirms, *secretes*,) the medullary, and is the principal element engaged in the function of their parts.

I trust these few and brief remarks will suffice to shew, that the present subject, although in one sense presenting a difficulty, is only such for want of an extended knowledge of cerebral Physiology. That there are many, very many, difficulties in the science of Phrenology, is a fact that cannot be denied by even the most enthusiastic practitioner, and which require continued study, observation, and experience, to overcome. Till such, however, are explained, we shall not only have to contend against a host of opponents, but be continually perplexed by meeting cases and facts relative to the functions of the human brain, which cannot be explained by any known principles of phrenological science. The mind of man is a mystery, which the ancient and modern schools of methaphysics have tried in vain to solve. Phrenologists must not expect to unravel this sublime problem, without continued investigation, and devoted study. A great deal is doubtless yet to be learned respecting cerebral phenomena, and a great deal of what we now receive as true, must be remodelled, if not entirely relinquished, before Phrenology can become a truly PRACTICAL SCIENCE.

F. S. MERRYWEATHER.

America," vol. ii. p. 279. Or the 'Phrenological Journal," vol. xiii. p. 161. "Annals of Phrenology," no. i. p. 37, Boston. Sir A. Cooper's Lectures, vol. i. p. 279.

* Gall's works, vol. i. p. 105. Boston library edition.

† I use the term relatively, because the convolutions vary according to their position. Thus the anterior are generally the smallest, but most numerous—the posterior are larger, but not so multiplied. The reason is obvious: in the intellectual region, there are more cerebral organs than in the region of the animal propensities. Nevertheless, where any one of the anterior convolutions is larger than usual, which is externally manifested by its eminence impressing a greater share of the frontal bone, we generally conclude, and logically so too, that it is naturally, or organically, capable of manifesting proportionately greater intellectual power assigned as the function of that particular part of the brain.

To the Editor of the People's Phrenological Journal.

SIR,—I have taken the liberty of sending you an account of a Phreno-mesmeric experiment, performed by myself on a young lady, between eighteen and nineteen years of age, in presence of her relations, and a large party of friends. If you think the account will prove interesting to any of your readers, or calculated to throw any additional light on the phenomena of Phreno-mesmerism, its insertion in your valuable journal will highly gratify your correspondent.

The young lady, who is of a mixed temperament, and possesses a highly interesting appearance, was sent into the mesmeric sleep in a few minutes, by making the usual passes, and occasionally pointing at the eyes. I then fastened her hand to my own, and in that position pulled her by main force from the chair in which she was sitting. Her arm was made rigid, and a chair placed on her wrist, which she supported for some time. Her hand was fastened to her forehead, and resisted all efforts made to separate them. I then placed her in a chair, and took a station about eighteen feet distance from her, and by simply extending my arm, and drawing it back in the direction of my breast, she was gradually drawn from her chair across

the room, to within six inches of where I was standing. She was then repelled back to her chair, by making thrusts at her breast. I then excited her benevolence by directing the points of my fingers to the organ, at the distance of two inches; and, in fact, all the organs were excited by pointing at them—my fingers never came into contact with the lady's head during the evening. This, Sir, I regard as important. The previous knowledge of the lady could have nothing to do with it, and it was impossible for her to know which organ my fingers was directed to. Upon Self-esteem being excited, she drew haughtily back, and rose majestically from her chair; and upon my telling her she was a poor girl, she became excessively irritated, and would not answer for some time. Destructiveness being excited, she clenched her hands, and rose in a threatening manner from her chair, with a frown overspreading her countenance. Benevolence being excited, she gradually lowered her arms, her hands unclenched, and her whole appearance exhibited an air of touching softness. Alimentiveness being excited, she expressed a desire for something to eat: several lumps of loaf sugar were handed to me, one of which I placed in my mouth. Directly I tasted the sugar, she moved her lips, and exhibited all the appearance of actually having a piece of the sugar in her own mouth. I asked what she had in her mouth? she replied, "Something sweet." Did she know what it was? She did not; but upon my putting another piece in my mouth, replied, "It is sugar." In waking her she became much agitated, but I soon calmed her by using the long passes at a distance.

I beg, Sir, to remain,
Respectfully your's,
A Subscriber.

EXTRACTS.

SOME NOTES UPON THE HEREDITARY TENDENCY TO MENTAL DISEASE.

By W. A. F. Browne, M.D.
Superintendent of the Crichton Institution for the Insane.

(Concluded from page 176.)

As it was before observed, individuals organically predisposed to derangement, are more liable than others to relapses. They have to struggle against the tendency which all structures manifest, to resume that particular morbid action to which they have before been subject; against the debility engendered by repeated attacks of alienation, and against that sensibility and susceptibility which at once make them more alive to the misfortunes, and difficulties, and contrarieties of life, and less able to resist their influence. The frequency of these paroxysms does not seem to interfere with the curability of the disease. The first in the series appears indeed to be more amenable to treatment, than cases where no taint can be detected. This is neither paradoxical nor inexplicable. The patient succumbs in many cases to some cause, such as intoxication, or passion, or disappointment, which is formidable only from the presence of predisposition, which is temporary, and which leaves the mind exhausted and excitable, but unchanged. To escape from the source of annoyance, to retire to such seclusion as will allow the intellect and feelings undisturbed rest and tranquillity, is generally all that is necessary to bring about convalescence. A period arrives, however, when, from the frequent occurrence of the malady, and from the approach of the decline of life, all remedial means lose their efficacy, and early decrepitude of mind and premature age appear together, and the patient passes into a state of incurable mania, or imbecility, or paralysis.

At this point, where observation may be expected to merge into conjecture, we leave the subject, in hope that the facts have been brought prominently forward—that the speculations incidental to so new and interesting a discussion have held a subordinate place—and that the great object originally proposed has been attained, by shewing, that hereditary tendency to mental disease is dependent upon organization, is subject to the ordinary laws of the system, and, in so far as our knowledge of that organization, and of these laws extends, may be cured, counteracted, or ameliorated, in the same way, and upon the same principles, as the tendencies to other diseases.

[The following report of the Crichton Lunatic Asylum has interested us so much, that we fancy our readers will be glad of an opportunity of perusing it. It is delightful to contemplate the entire change that modern science has effected in the treatment of the insane, and its surprising results. The institution over which Dr. Browne presides appears to be admirably conducted, and every thing evinces the advantages to be derived in such cases from the superintendence of an enlightened phrenologist. The report itself is drawn up with great simplicity, clearness, and method, and though the science is not directly mentioned in it, still it is in reality a valuable phrenological paper.]—Ed.

FOURTH ANNUAL REPORT
OF THE
CRICHTON ROYAL INSTITUTION,
FOR
LUNATICS,
DUMFRIES,
Eleventh of November, 1843.

The statistics of the past year are more than usually gratifying. If the rate of recoveries continues to reach to forty-two per cent on the admissions, and the deaths do not exceed five and a-half per cent upon the total number treated, there will exist substantial grounds for believing that the objects of the Endowment are fulfilled. The deaths have all been, with one exception, sudden; indicating the broken-down frames, the actually diseased systems, upon which mental derangement

especially falls; the inability of the vital powers to make any restorative effort, and the want of opportunity for using the ordinary means of relief. In treating some of these fatal cases, and other attacks of sickness, which have occurred, it is incumbent to acknowledge great obligations to Dr. Grieve, whose urbanity, and familiarity with the history of many of the patients, remove much of the difficulty of introducing a comparative stranger.

The two most interesting forms in which derangement has appeared during the past year, have been the association of a propensity to destroy, and an obstinate refusal of food, with general disturbance of the faculties. Of the first species, twenty-four cases have been admitted. This tendency may be displayed either in the extinction of human life, of which there have been eleven examples, or in the demolition of furniture, of which there have been thirteen examples. There has been a decided increase in the proportion of these to the other cases admitted. It is a singular fact that this peculiar manifestation in those of infirm and diseased mind should be synchronous with the appearance of a similar tendency in those of ill-regulated and vicious mind, that furious mania and crimes against the person should increase at the same time.

It is the act, the process of annihilation, the excitement of breaking, crushing, destroying, which is the object and the source of gratification. The impulse, although the cause of the most sanguinary tragedies which disturb society, is not necessarily cruel; it often arises in a calm, collected, calculating mind, in the absence of every provocation and all design to injure, marked by all the gaiety and sportiveness of a placid and happy disposition, and is followed, it may be accompanied, by contrition for the evil or injury perpetrated, or the perfect repose and equanimity of a satisfied and successful ambition. That this thirst for blood, this passion for the mutilation of all that is entire, for the destruction and disorganization of all that is perfect, is sometimes the single solitary diseased spot in the mental constitution; that it is, in fact, the disease itself, and may be compatible and contemporaneous with strength of judgment, culture, and correctness of deportment, history, as well as medical experience, seem to have established. A melancholy illustration is at present in the Institution, where a desire to kill, sudden and unprovoked violence, and the most ferocious and malicious cruelty under excitement, are associated with a keen perception of harmony, strong and unsuggested feelings of devotion, and the aspect and courtesy of the patient's original position in society, where, while speaking blandly and benignly, although it may be incoherently, a severe injury, with the wish to murder, will be inflicted; and where the offender, forgetful or unconscious of the assault, will pass immediately and composedly to the performance of a piece of music, or to the perusal of Tacitus.

But this frightful propensity, as presented to observation in hospitals for the insane, is, in general, one of a series of symptoms; is the result of a suspension of reason, and the moral sense, and all the governing powers; or of the sudden development of irresistible muscular strength, an impulse to action, and of the multiform painful and morbid sensations of which the sufferer is conscious, the nature of which he cannot comprehend, and from which he is anxious to escape. A distinction should, however, be drawn between the acts of violence which are resorted to by patients during anger, under delusion, and for a specific purpose; and the blind, unprompted, involuntary propensity which is here considered. There are inmates who would sacrifice those whom they regard as oppressors, in the hope of affecting their deliverance, or in obedience to a divine or diabolical instigation which they are constrained to obey; but there are others, who, free from malice or revenge, uninfluenced by a design or desire of liberation, would act in the same manner to the dearest friend, or to the most innocent, unoffending companion. It is difficult to separate this malady from crime; and the attempt to do so is rendered almost abortive when neither error, nor eccentricity, nor delusion, are broadly obtruded upon observation. But in the most perplexing case of *real* disease, a careful analysis of the history and present condition of the individual will show that the reason or emotions participate less or more in the morbid action; that the impulse to destroy is either opposed by an impaired will and perverted conscience, or roused and fanned by some hidden and unhallowed hallucination; that it acts through and by faculties, which cannot escape its influence, which must be subdued or subdue; that the outburst of frenzy has been preceded by a long course of waywardness, irregularity, unsteadiness; that the mind has been inaccessible to ordinary motives, and the sport of all that is wild, and weak, and vain, and visionary. This view neither receives nor excludes impulsive insanity. The inquiry is made more complex when such symptoms succeed, as they frequently do succeed, habitual paroxyms of anger, a life of profligacy and violence; where they have sprung with and from slight unreasonableness and irrascibility; where they have strengthened with the augmented virulence and excitability of the temper, and where ultimately passion has merged into madness. But even here the propensity stands not alone. It must not be concluded that this species of derangement is confined to the violent and depraved; although it is true here, as elsewhere, that "those who sow the whirlwind reap the storm." The pure, the gentle, manifest similar dispositions. A lady of the most subdued and retiring manners, of quiet, even indolent habits, is converted, after one brief but pregnant sleep, into a bold, boisterous, reckless virago, who strews her apartment with the wreck of all that is frangible and valuable; who rarely loses her good humour; glories in her achievements, and, retaining a clear conception of their nature, changes her dress in anticipation of what she is about to be impelled to do, and even solicits coercion that these impulses may be controlled. Her request is not, of course, complied with. Restraint under such circumstances is inadmissable. It would be as wise to place a strait-jacket on a steam-engine. The irresistible tendency to seize and subvert cannot be ruled or controlled by bonds; and unless the object be remedial or preservative, unless there be reason to impress, or shame, or caution, or conscientiousness to appeal to, all physical interference would prove futile. Property must be preserved, and the expedients for doing so are fortunately numerous. That the melodramatic, the exciting tendency of a portion of our literature, which may be styled the sanguinary school of fiction, has suggested crime, and is calculated to train up youthful and ill-regulated imaginations to a career of dissoluteness and recklessness, and disregard of life, is all but demonstrated; and there appears to be still stronger evi-

dence that the tales of rapine and murder, the descriptions of suicides, of coroner's inquests, in which the periodical press daily indulges—however necessary such a course may be in a state of society demanding the publicity and investigation of every occurrence, and however well adapted to gratify the morbid curiosity and debased feeling which prevail,—do directly and fatally act upon minds predisposed to mental disease, and impress a particular character upon its phenomena. It is impossible to exclude newspapers from the Institution, as they, in many cases, form the great channel of intercourse between the free and the isolated; but it is often necessary to weed and purify their columns of obnoxious paragraphs. In two cases, this inoculation of the horrors of crime and misfortune upon disease may be traced; and the virus may extend more widely, but escape observation, as it becomes absorbed and lost in the disposition or delusion. A lamp-post at the Hotel des Invalides suggested and supported even suicides. The fall of one unfortunate man from Waterloo Bridge, during last autumn, was immediately followed by six attempts to commit suicide from the same spot; and there is no ground to conclude that the pernicious influence was confined even within these limits.

The incursion of this propensity is sudden and impetuous. A respectable and industrious tradesman, whose intellect had been first confused, then clouded, awoke from sleep and attempted to murder his wife; an artizan, sorrowing for the imaginary illness of a beloved child, seized an axe to slay the mother; a lady starts from her knees at the altar to assault a neighbour and friend; an educated gentleman strikes and struggles with his servant; a lady quietly and silently, but quickly, reduces every sheet and blanket to threads, Yet premeditation may co-exist, and consummate art may dictate the place and opportunity. A father despatched a trustworthy messenger to borrow or buy a fowling-piece for the avowed purpose of exterminating vermin, but, in fact, to shoot his son; a powerful but craven maniac invariably selects the noviciate of his attendant for wreaking vengeance and displaying vehemence; a vindictive monomaniac attempted to fabricate a deadly instrument from his tooth-brush, by means of the buckle of his stock, carefully concealing his operations, and carrying them on when he imagined that he could do so unobserved. These proceedings shew that such a tendency may be cherished, sustained, regulated, reasoned on by a patient. In the majority of cases it has been exhibited in the destruction of property, in the immolation of window glass, and the unweaving of blankets and beds. The conduct of a female, whose ingenuity and pertinacity in producing noise, and in displaying a sheer insensate antipathy to every object that would break, or bruise, or tear—taxing and exhausting every expedient to arrest her devastation, and giving her a pre-eminence among many of her intractable companions—well illustrated the character of the disease, for she was regularly employed during the day in repairing and reconstructing the quilted coverlets, and other articles, which she had torn and damaged during the preceding night, and which were expected and destined to meet the same fate in her succeeding orgy. Her song was as gay in the one occupation as in the other. Another individual deprives hinself of the comfort and warmth of night clothes, in order to reduce them to shreds and patches; and having indulged his predilection, conceals the evidence of his delinquency in the bed of his companion, in order to remove the blame, of which he is perfectly conscious, from himself. The cunning and stratagem of this person are so exquisite, that the night watch can never surprise him in his work of destruction, nor even find him awake.

Many of these refractory subjects set at defiance the influence of acetate of morphia, which has been found extremely useful in restoring tranquillity; the employment of canvass and quilted dresses made in one piece, and secured behind by flat locks; and necessarily require seclusion in a padded room. As that now in use here, and the improved plan adopted in the Nottingham Asylum, are both liable to serious objections, it is proposed to construct another, the walls of which shall consist of double quilted canvass, stretched on wooden frames, in the same way that the bottom of many beds are made. The canvass will be fixed on a number of frames placed in a socket and secured by locks, at a distance of half-a-foot from the wall, and may be removed or changed when it is necessary to clean or repair them. The only difficulty is, that the frames themselves will offer a point of resistance to the head or limbs of a patient; but these points may be padded. This plan embraces economy, cleanliness, coolness, and exemption from the smell of hay, straw, or wool.

There has been a general tendency to abstinence. The preservation of life, rather than the restoration of reason, became the most imperative duty. To eat sparingly and irregularly, to fast rigorously and protractedly, to induce disease and debility by these penances, and to sink rapidly under this test of the powers of endurance, although supported by the purest motives and most sustaining faith, was the course pursued in a large portion of cases. For, if stripped of accidental and accessory manifestations, some religious impression was found to be the point upon which the determination rested. The object was sacrificial or expiative, not suicidal; there was no irrevocable resolution to die, unless death came as a part, or as the climax of the retribution or the atonement. That spirit which now agitates large bodies of learned and pious men; that clinging to primitive usages, seems to have penetrated these abodes of error and darkness, and to have communicated a peculiar character to the eccentricities of the insane. The pulse which beats healthily and gently in the general community, displays a frightful and feverish violence when it is observed in the enthusiastic and the weak. Of the patients submitted to treatment, thirty-three have, for longer or shorter periods, refused to take food. This abstinence has been total or partial, temporary or permanent, systematic or capricious, abandoned on persuasion, or obdurate and insurmountable. Such a symptom occasionally occurs in the progress of nervous disease; but what is worthy of remark, what has called forth these observations, is that it has characterised so large a proportion of cases, differing so widely in their causes, course, and consequences; and that, with three exceptions, the rejection of nourishment has not depended upon anorexia, or disorder of the digestive functions. Repugnance to food, and the refusal of it, should be carefully distinguished. A glance at the table which is here introduced will serve to show that this manifestation is generally the result of a mental process, and that the opinion, that it may be traced to nausea or indigestion, is altogether untenable and erroneous.

Patients who have refused, or do refuse, to eat. November, 1843.

The following are the Number, Name, Duration of Abstinence, Motive, and Peculiarity of each Patient:—

1. A. — Days. Fear of poison; eats if matron present.
2. B. — Days. Fear of mercury; fasts when constipated.
3. C. 8 Days. It is sinful to eat.
4. D. 3 Days. Fasts on religious grounds.
5. E. 5 Months. A test of immortality.
6. F. — Days. Pre-occupation; She is sinful.
7. G. — Weeks. Imagined difficulty in deglutition.
8. H. — Weeks. Impression that she had fever.
9. I. — Days. Inflammation of ears.
10. J. — Days. The food is unclean.
11. K. — Days. Furious pre-occupation.
12. L. — Weeks. Caprice; moroseness.
13. M. — Days. Pre-occupation.
14. N. 4 Weeks. Object either religious or sanative.
15. O. — Days. Obstinacy; Pre-occupation.
16. P. — Weeks. Divine command.
17. Q. — Weeks. Plot displayed in position of plates.
18. R. 5 Days. Dislike to particular servitor.
19. S. — Weeks. To destroy life.
20. T. 5 Days. To obtain a larger allowance of tobacco.
21. U. — Days. Pride; Dislike to eat with others.
22. V. 3 Months. Fatuity.
23. X. — Days. Moroseness
24. Y. — Days. Pre-occupation.
25. Z. — Weeks. Fatuity.
26. A. 8 Days. Preparation for death.
27. B. — Days. Anorexia; is a Catholic
28. C. — Days. Feeling of degradation; divine command.
29. D. — Days. Vow to use the left hand only.
30. E. — Days. Anorexia; Pre-occupation
31. F. — Weeks. Fatuity; pre-occupation.
32. G. 1 Week. Suspicion of poison.
33. H. — Days. Desire to have food in a certain way.

That serious disease of the stomach follows such conduct, and that it is extremely difficult to preserve life, whatever amount of sustenance be artificially supplied, is true; but the origin of these evils is to be sought in an affection of the nervous system, in the abolition, or impairment, or perversion of that natural instinct which suggests the act of eating, and renders it agreeable. Mere inappetency, an exemption from the cravings of hunger is thus as undoubtedly a form and feature of derangement, as voracity and gluttony. Patients may be tempted by all that is inviting, and rich, and rare; they may remember the gratifications of sense, and comprehend clearly the penalty which must attend a departure from the ordinary laws of the constitution, and still they neither feel the suggestions of appetite, nor yield to the convictions of reason. More frequently this want of inclination, or opposition to the inclination, to eat, is suggested or supported by some ulterior object, by some under-current of thought or feeling, which is only thus brought to light. Then the natural appetite, or, as it has been described by a victim to its pangs, the insatiable craving is held in check, is subjugated or extinguished by fear or hope, or remorse. In one instance, where food was forcibly administered for many months, where six pints of highly concentrated nutritious liquid were daily introduced into the stomach, and where there was strong proof that no disgust or repugnance existed, the motives were obviously to exhaust patience. to excite fears as to the state of the health, and to secure liberation. This occurred in a melancholic of the most inflexible sternness of purpose, whose disease consisted in suspicion and obstinacy, but who had no desire to die. As a means of suicide, fasting is rarely resorted to. In the only two instances which have occurred in the present series of inquiries, both patients resolved to destroy life gradually and without suffering. They acted from cowardice; they dreaded the pain of poison, or the agonies of sudden and violent death. This was their own confession. One of these, a gentle, timid being, who could not even look upon fire-arms, who shrunk from contention, and strife, and suffering, maintained for months an unshaken determination to die by starvation, and only yielded to the greater firmness and perseverance of those to whose care she was entrusted. Another, a highly cultivated man of literary and secluded habits, unable to bear the conviction that had toiled in vain, endeavoured to uproot and weaken the energies of life by long-continued abstinence and opium eating, in order that when the fabric tot tered, its fall might at once, and pleasurably or unconsciously, be precipitated by a large last draught of laudanum. The difficulties of meeting such motives, of overcoming purposes interwoven with the very structure of the morbid mind, of devising expedients by which suspicion may be allayed, the will induced to yield, or the very delusion which has originated the evil rendered the counteracting agent, are endless and discouraging. Food has been infinitely varied to tempt the appetite; the simplest kinds have been offered to disarm apprehension, or it has been tasted and shared by those around; an officer has been supported on the strength of an order from the Horse Guards that he should eat: and where every persuasion and plot and plan have failed, the naso-œsophageal tube has been found of infinite service, both from the facility with which it may be introduced, and from the slight annoyance and irritation it occasions the patient. Suicidal mania as a congeneric form has appeared in twelve cases. This large proportion created constant anxiety and apprehension, and called forth every care and precaution which these sentiments and habitual vigilance could suggest. Every insane person should be regarded as prone to the impulse of self-destruction; and although the expedients adopted to guard against such a casualty should not be so prominent as to suggest the want of confidence in the principles or promises of the party, or the insecure tenure of the existing state of mind, no amount of cheerfulness, no length of probation, can justify the cessation of of supervision so long as the mind is subject to diseased action. That anomalous conjunction of the fear of death from others, and the desire to die by her own act, has appeared in one female patient, who, while obstinately resisting medicine, from the suspicion that it contained murcury and poison, having some knowledge of the constitutional affects of that drug, took every opportunity of filling her boots with water, in order that she might be attacked by inflammation and die. This systematic sapping of the foundations of strength and health was resorted to after many attempts at strangulation had been detected and defeated.

These are the dark and forbidding parts of the picture. But it has another side. There are in our wards conservators, as well as disturbers of the prescribed order and peace. Men who, perceiving clearly the follies and turbulence of their companions, although unable by any reflex action of the mind to detect or admit their own, assist the attendants in their most disagreeable duties; advise, expostulate, threaten, and subdue the offenders. Friendships are contracted, which subsist long after the relations of the parties to the contract have totally changed. There are others capable and willing to impart the endowments and acquisitions which distinguished them in brighter and better days. There is a mother, separated for years from her children, who converts a scanty pittance allowed for labour in the laundry, into useful clothing, and enjoys an annual jubilee when her little store is transmitted to her home. Daily occur sacrifices of personal comfort, the interchange of good offices, exertions to please, cheer, console; displays of the most generous and exalted sentiments of which the heart is susceptible.

If even the external attributes and manifestations of the insane be examined, those eccentricities and extravagances which remove them as widely from the standard of health as their delusions and morbid tendencies; those affections of motion and sensation which have their root in the disorder or disorganization of the nervous system; a more striking representation of the aspect of the asylum will be given, than if an analysis of the intimate mental condition of each individual were attempted. At present, of the 109 patients in the institution, seven are biters; inflicting injury upon their own body, or that of their guardian, by the teeth, more from abstraction, or some debased desire, than from malice or passion. Of these, four are females, three males; two of the latter, however, certainly display their mordacity during strife and struggles, and are only remarkable for using the teeth as weapons of offence, in preference to the great muscular force which they possess. There is next a group of twenty-three mutes, of individuals, who, endowed with perfect organs of articulation, never use the powers of the voice, except on special occasions, and to particular persons. In one, this voluntary silence has been preserved for twenty, in another for ten, in a third for two years: in the others, the practice has been adopted as an indication of dislike or anger, as a religious vow, or as a penance. A soliloquist, or whisperer, who has not been heard to utter a word for many years, has lately endeavoured to speak to others; and among other peculiarities of his language, he never employs the first person. A single instance of imitative speech has come under notice, where the patient could repeat clearly and distinctly the concluding words or syllables of what was addressed to him, but failed to originate a solitary expression. This phenomenon was conjoined with general paralysis. Not fewer than nine patients speak occasionally in a jargon which may be a compound of known and forgotten tongues, and local idioms, but is so uncouth and incongrous, as to defy explanation.

In direct contrast to this class are eighteen declaimers, who howl, shriek, and vociferate in every tone and tongue which the voice can embrace. The object is not to make known by words any predominant want or wish, but to give vent to feeling by natural signs; or to create noise of the most powerful and penetrating kind; or to gratify that instinct which, in savage life, and under the stimulus of passion, finds expressions in whoops, and shrieks, and shouts. Seventeen persons delight in nudity. The greatest number of these are prompted to disregard their feelings of decency and delicacy, and encounter exposure, cold, and discomfort, by those sensations of creeping, heat, and irritation, which are known to affect the surface in insanity. The most marked symptom in sixteen cases, is reverie or abstraction. The attitude preserved for days, or months, or years, is that of profound attention and contemplation; every muscle is at rest; the gaze is fixed, as if it accompanied fixity and intensity of purpose; and in many instances the activity of the vital functions seems to be diminished. This state is sometimes the act of the will; sometimes the result of that deep, concentrated, but involuntary dwelling upon one idea, which occurs in monomania; sometimes it is the stupor of imbecility. The direction of the steady, solid, stare, varies in different individuals: in six it is downwards; in eight it is forwards upon vacancy; in one it is upwards; in one the eyes are shut, to exclude objects of dislike. Closely approximated to these, are the automatics, who, although not cateleptic, are constrained to assume unnatural positions, and modes of progression. Thirty-four patients are thus affected. Three occupy tenaciously the same bench, defend their right to the seat selected most valiantly, and can neither be compelled nor persuaded to abdicate; a fourth stands weeks on the same spot by the command of the Deity; three stand stiffly, rigidly, immoveably erect, although they change the sites of their statuesque attitudes; one of them now sits down with considerable difficulty, from the long continued extension of his limbs; three stoop, as if bowed down by some enormous weight, and then remained fixed in this new and grotesque posture; five crouch in corners, or behind chairs, from a design of escaping observation, or of compressing the body into the smallest size; four supinate, remaining for hours, and until disturbed, on their back. This preference of the horizontal position is often induced, in order to accomodate or relieve particular sensations; but more frequently it is the demonstration of some powerful delusion. In one of the cases cited, the patient avers that it is assumed for the purpose of keeping all parts of the body in equilibrium, and of allowing two combatants, life and death, fair play. One pronates, or rather pronated, for the habit has been eradicated, burrowing his face and person in the carpet, and shutting out light, and shame, and sorrow, by this abject humility. One person stands poised for hours upon one foot. Another would continue the same length of time supported upon the head and hands, if not interfered with; and is often found putting his gymnastic powers to the test during the night. This individual vaults to any elevated point which he can reach, and climbs, clambers, and leaps upwards, whenever permitted, as if urged by an ungovernable impulse to ascend. The same practice is pursued by a female, who, when not actually held or watched by an attendant, either bounds into the air, crawls animal-like upon the hands knees, or swings too and fro in the act of nursing a child. When such a peculiarity is supposed to be incurable, while it has become a part of the mental constitution, and where it in no way impedes or mars the operation of other means of amelioration, it is indulged.

ANSWERS TO CORRESPONDENTS.

R. Jones.—The following remarks were written to accompany Mr. Jones' letter in our last number, but we had not room for their insertion.

We shall always be glad, as far as our limits will permit, to afford Mr. Jones an opportunity of stating and defending his opinions. We like his earnestness and eandour, and we are sure he is as open to conviction as any other phrenologist. His present defence is ingenious, but we do not think it touches the real difficulty alluded to by Dr. Collyer.

We have a few remarks to make on Mr. J.'s letter in our last number. As to the matter first touched upon, we are glad to find that the difference between us is merely verbal. Mr. Jones takes rather too serious a view of our *badinage* about eoming down upon Phreno-mesmerism. We have neither the power nor inclination to erush any truth, old or young. Our method of investigation and argument is caleulated to elicit truth, even in despite of our previous impressions. — "We think Phreno-Mesmeric experiments of the greatest interest, and of great utility also," because they bring to light many curious facts which may ultimately turn out to be of great advantage to science. But we are, for the most part, opposed to the phrenological use that has been made of these facts.

Dr. Collyer formerly thought, that when the action of the organs succeeded the touch, or pointing of the fingers towards them, they in reality obeyed the mind of the operator, and not his fingers. Now, however, he believes that cerebral action *sometimes* results from contact only, the mind of the operator being passive, or even opposed to the result. We greatly differ from our correspondent in respect to the "Law of loeality" in the arrangement of the phrenological organs. We believe that nature has here, as in every other department of her works, adapted a perfect and wonderful system, the outlines, and many of the details of which may, even at present, be rendered perfectly evident. We cannot, however, take up this matter now, as it would involve the premature introduction of many new opinions.

N. Hynes.—The information afforded us is very good as far as it goes, but Mr. Hynes is not aware of the task he sets us. For us to draw up a Phrenologieal sketch, in the most favourable circumstances, is a very laborious and anxious duty, to say nothing of a case like the present. We cannot manage as some do. A mere verbal description of character usually oceupies us from *one* to *two*, or even *three hours*, and then we are talking as fast as we can. To give in writing the substanee of such a long lecture may be two or three day's work, according to the difficulties of the subject, and therefore we seldom attempt any thing of the kind. We would rather give a dozen *viva voce* descriptions, than one written one; for when once we get a pen in our hands, we hardly know when to stop, the subject is of such vast extent. All this is very stupid no doubt, but we cannot help it.

A. Lundin.—The opening of the ear eorresponds sufficiently with the centre of the brain for all practieal purposes, and the division of the brain into animal, moral, and intelleetual regions, will eorrespond with the manifestations of eharaeter, provided proper allowance be made for the variations of temperament, and that the term "animal region" be not misunderstood. This term usually carries with it the idea of inferiority, baseness, etc. Nothing can be more ineorrect than this meaning, as applied to the posterior region of the head, which contains some of the best feelings of our nature. Amativeness is the only organ in this region from whose too great size any inconvenience is likely to arise. The lateral-basilar region of the head may be looked to with some suspicion when large, but the back of the head, Amativeness exeepted, will never probably be found too large. There is no such rule in Phrenology as our correspondent alludes to. Nothing of the kind is possible in the nature of things. The summing up of character from measurements, etc., is a difficult and extremely complex process.

There is indeed a want of clearness in the science, on the subject of the *temperaments*. And until this difficulty is overcome, practical Phrenology will be no great affair, on the whole, however successful experimenters may be occasionally. Temperament is indeed a science of itself, and little is known of it as yet. As to the usual division of the subject into four temperaments, it is, in general, worse than useless; it merely eheats persons with the idea of knowledge, without its reality. It would not be a few coloured plates that would give any satisfactory information, but a long series of them.

W. B.—Yes, in our opinion, practical Phrenology resolves itself into a branch of the scienee of ethnology. There are various peculiarities of character of which we can discover no directly external indications. This however is not material when we know that these peculiarities are distinctive of certain races, which raees are easily discovered by various external marks. As yet, however, the *science* of ethnology does not exist, at least before the public. Valuable materials have been collected in abundance, but the deduction of a scienee from them is a work yet to be accomplished.

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A COMPLETE SYSTEM OF PHRENOLOGY.

WEIGHT—(*Continued*).

THERE can be no doubt that animals have this faculty: they are instinctively able to calculate the exact amount of resistance necessary to overcome; to accomplish any object necessary for their preservation and support. A sparrow will sit upon a twig in confidence, with a cat watching to pounce upon him, knowing it is not strong enough to bear her weight, and the cat too will wait to make her spring till her prey is in a secure spot. All animals continually manifest this power in an extraordinary degree. Birds and fishes know innately what force to apply to enable them to overcome the resistance of the air or water. Human beings are continually using the same power but are rarely in the habit of analysing the causes which enable them to perform certain actions, but if they find from incorrect perception of the force required upon any occasion, as for example, if there is a step less than is expected to ascend, or if they expect that an article is very heavy when the contrary is the case, they then are able to conceive the manifold accidents and disagreeable occurrences which must accrue, were the faculty in question not in continual action; it would indeed be impossible for an individual to stand upright, or walk without falling, unless the organ of weight enabled him to overcome the natural tendency of the laws of gravitation by the sense of resistance.

COLOR.

This organ, No. 26, is situated near the middle of the eyebrow. The centre of the arch, between Weight and Order, when large it gives the fine arched appearance to the eyebrow, and in looking downwards, from the top of the head, this part will be perceived to be the most projecting. This organ perceives colors and their relations, or harmonies, according to some phrenologists, while others maintain that this organ merely perceives the colors, their arrangements depending upon other portions of the organization. There are many individuals in whom the faculty is weak who cannot distinguish between two colors, and some indeed who cannot at all perceive color, while on the other hand we find entire nations with the organ large and manifesting a proportionate talent in coloring. This is seen in the Eastern countries, and nature has provided abundantly for its gratification by spreading out her richest hues in the blossoms of the trees, the plumage of the birds, &c. &c. This organ is generally larger in females than males. Artistically their forte is coloring, it gives rise to a passion for flowers and gay colors in general. Ideality is required to combine them and restrain the love of gaudy colors, which may be indulged in under the influence of this organ and love of approbation. This organ is large in all artists who have excelled as colorists, it aids the ornithologist. Some blind men can distinguish colors by the touch, but it is doubtful if any one born blind could have any conception of color. Imitation aids in a most especial manner the activity of this organ, as it has much facility in combining with all the other simple perceptive faculties.

This is the last of the organs denominated simple perceptive powers. They may be described as the adjective powers, Individuality in the centre takes cognizance of all nouns, the other faculties in the same group, of the adjectives of form size, weight, and color. Some phreno-

mesmerists have asserted the discovery of various organs of form, size, and color, as for example, a separate organ for different forms or shapes, and for the different primitive colors; but as far as our experience goes we have seen nothing in corroboration of these views, but it is very likely to be the fact, although the extreme small size of these divided organs, must render all observation in regard to them extremely difficult. Few mesmerists that we have seen can even touch with precision some of the organs of the feelings, the slightest movement in the hand of the operator, or the head of the patient must render it almost impossible to touch one of these diminutive spots with precision, without for an instant coming in contact or holding the point over other portions of the organ; and we know in susceptible subjects the organs may be excited as well without as with contact. Therefore, allowing for a moment that it were possible to excite one fibre of the brain without exciting the portion not a line removed, it must require no small nicety of touch to point exactly, or touch only *the fibre* to be excited.

EVENTUALITY.

This organ was included by Dr. Gall with Individuality, in what he called educatibility, but from the fact that the upper part was often small, when the lower part was large, and *vice versa*, phrenologists, since the time of Gall, have proved that this portion of the brain performs a perfectly distinct function from that marked as the seat of the organ of Individuality, immediately above the root of the nose. It has been named Eventuality, and is numbered 30 on the marked heads: its situation is immediately above Individuality, in the centre of the forehead. When large this part is well arched and more prominent than the lateral portions of the intellectual region, the projection of the perceptive faculties, the large development of the organ of Comparison may lead to underrating the size of this organ, or their deficiency may give this portion a prominent appearace when it is not positively large. An estimate must always be made not only of the space occupied by an organ looking at it in front, but the distance it projects in advance of a given point. In the casts of Dr. Franklin this organ appears deficient, it is very large in Pitt, these two masks may be observed to recognise the different appearance resulting from the organ in question being large or small.

This power may be called the verb faculty, as Individuality is the noun, and the simple perceptives the adjective. As soon as any action takes place, any motion, in fact any event whatever, it is taken cognizance of by this faculty—the house falls, the army retreats, the king abdicates, in these phrases the nouns are taken cognizance of by Individuality as mere existences; the action done by or done to call up Eventuality; and if we consider that all history whatever, sacred, political, or social, as well as the history of all the sciences, are merely records of what has been done by, or done to certain existences, or nouns, we see how important a power this is, not only perceiving the events, but remembering, keeping them, as it were, in a storehouse, to be picked and culled when required to gratify the other portions of the organization. Thus, an individual with large Eventuality is able to illustrate an argument, and prove it to some extent by reference to events which have occurred. Comparison aids in making a correct selection. All popular orators and writers have this organ large, and these powers being much larger developed and more active than Causality, and the larger reflective powers, it is very evident why the soundest reasoners, and really great writers, preachers, or pleaders, are not the most popular: they may be too good to be generally understood and appreciated. The different styles, of composition may be in a great degree traced to the relative size of this organ to the other intellectual faculties. In Sheridan it is smaller than Individuality, Form, and Size. He describes object and individuals so that an artist might make a correct sketch by merely following the description. In Pope, Eventuality is larger than the other faculties, and his persons are described rather by acts than Individuality, Form, and Size.

Take his description of lovely woman, embodied in the following passage:

"Not with more glories in the ethereal plain,
The sun first rises o'er the purple main,
Than issuing forth, the rival of his beams,
Launched on the bosom of the silver Thames,
Fair Nymphs and well dressed youths around her shone,
But every eye was fixed on her alone.
On her white breast a sparkling cross she wore,
Which Jews might kiss, and Infidels adore.
Her lively looks a sprightly mind disclose,
Quick as her eyes, and as unfixed as those.
Favours to none,—to all she smiles extends;
Oft she rejects, but never once offends—
Bright as the sun, they shine on all alike;
Yet graceful ease, and sweetness, void of pride,
Might hide her faults, if belles had faults to hide.
If, to her share, some female errors fall,
Look on her face, and you'll forget them all."

Here there is action, condition, and quality, but nothing like individual description. Her face, although no doubt very beautiful, is described as though the author himself had never seen a single feature of it.

Sheridan, in describing two individuals, a husband and wife, pays very little regard to the points so striking in the above description, but confines himself to substantive and adjective description. He says,

"Her fat arms are strangled with bracelets, which belt them like corded brawn—you wish to draw her out as you would an opera glass. A long, lean, man, with all his arms rambling; no way to reduce him to compass, unless you doubled him up like a pocket rule. With his arms spread, he'd lie on the bed of Ware, like a cross on a Good-Friday bun. If he stands cross-legged, he looks like a Caduceus; and put him in a fencing attitude, you would take him for a chevaux-de-frise. To make any use of him, it must be as a spontoon, or a fishing rod.

(*To be continued.*)

THE PEOPLE'S PHRENOLOGICAL JOURNAL.

THE question of the respective functions of the two substances of the brain having of late been often alluded to in the Journal, we think it necessary to lay before our readers its real bearings, as we consider some of the positions advocated in respect to it, directly subversive of Phrenology.

From the stratified structure of the cortical substance and its consequent analogy to the arrangement of a galvanic pile, it has been conjectured that its destination was to generate some ethereal fluid essential to the purposes of mental action; and from the fact that the relative quantity and complication of this substance seems to bear a very direct relation to the number and energy of the mental powers, it has also been conjectured that it constitutes the essential organ of those powers. We shall presently see that these two opinions, though often confounded, are essentially distinct, and that the one may be held while the other is rejected. Those who consider the cortical substance as the true organ of the mind, are under the necessity of finding some other function for the medullary matter, and therefore suppose it to be the organ of the merely physical powers, or the instrument of motion, or the medium of communication between the external nerves and the cortical substance, the true organ of the mind. It is obvious that in a discussion of this kind the phrenological reasoner enjoys many advantages over others; he can refer to a large mass of facts directly bearing on the question, of which those opposed to, or ignorant of phrenology, cannot avail themselves. As we are now addressing ourselves to phrenologists exclusively, we shall, of course, fully avail ourselves of these facts, and consider them as a legitimate test of the accuracy of the opinions we are about to examine.

Let us suppose then, in the first place, that the cortical matter is the true mental organ, and that the medullary has a distinct and different office. It is admitted, on all hands, that the shape of the head greatly varies in different individuals, in other words, that the distance from the centre of the brain to different points in the circumference greatly varies; and it is admitted by all phrenologists, that these variations are, within certain limits, exactly corresponding to variations in the mental powers of the individual. Now we find that the cortical substance forms but a comparatively thin layer on the surface of the medullary mass; consequently its variations in thickness in different individuals, and at different parts of the same head must necessarily be trifling when compared with the distance of four, five, and six inches which exists between the centre and the extreme surface of the brain. Its quantity, therefore, cannot determine the shape of the head, for its convolutions do not rise out from the cerebral mass, but dip into it, and, therefore, give no external indications of their number or size. Now the difference in length between what phrenologists call a large and a small organ, may, in some parts of the head, exceed an inch; the variations in the thickness of the cortical matter can have little to do with producing this difference. It must obviously depend on the greater or less length of the medullary fibres. If then these fibres are not the instruments of the mental powers, how is it phrenologists find the mental powers proportionate to their length, *ceteris paribus?* Were the whole of the cortical substance instead of being convoluted and extended, formed into one thicker plate, the utmost amount of its variations in different individuals would not account for the differences we speak of. As matters stand, however, these can make but little apparent difference in the absolute size of the head and none in its shape. If, therefore, it be exclusively the organ of the mental powers, Phrenology is an absurd dream, for it is the development of the medullary matter that essentially determines the size, and altogether determines the shape of the head.

All growth is from within outwards, and never the reverse. The external portions of the brain then ought to receive their shape from the internal, as the skull receives its shape from the surface of the brain. It would be contrary to all analogy to suppose that subordinate structures should determine the shape and position of superior ones, or be developed before them. The bones do not determine the length of the muscles, nor the muscles of the nerves, nor the nerves the size of the brain but the reverse, and yet we are to suppose that the subordinate parts of the brain determine the position, and precede in formation that portion to which all the rest of the body is subsidiary in function, viz.—the organ of intellect and feeling.

Again, if the cortical substance be the organ

of the mind, the medullary cannot have an entirely distinct function, for then the organ of the mental powers would be entirely isolated from the rest of the body. There would be no communication between it and the nerves of sensation and motion, all of which terminate, either directly, or through the means of the spinal column, at the centre of the brain. On this theory they ought to rise in the medullary matter and send branches to all parts of the cortical substance. As they do not, the medullary fibres muts, according to this view, be regarded merely as media of communication between the external nerves and the cortical matter. The researches of Foville are said to show that morbid alterations of the cortical substance are directly connected with derangement of the intellect; while those of the medullary matter are connected with disorders in the motive powers. If this authorises us in considering the cineritious substance as solely the organ of the mental powers, and the medullary as solely the organ of motion, then how is sensation conveyed to the cineritious mass? The course of motion is downwards and outwards, that of sensation upwards and inwards; we cannot suppose that both take place in the same nerves, that there are opposing currents. Our knowledge of the rest of the nervous system is against this supposition; we find one set of nerves devoted to sensation, and another to motion. Besides, if it were different in the brain, disorders of sensation ought to be found connected with derangements of the medullary matter, as well as disorders of motion. The same results should follow if this substance were composed of both kinds of nervous fibres, the ascending and descending, fibres of sensation as well as fibres of motion. It is clear then that these researches do not warrant us in regarding the cortical substance as the sole organ of the mental powers, nor the medullary as merely an organ of motion.

If the cortical matter be the true mental organ, then it follows of necessity, according to the principles of Phrenology, that the medullary must be simply a medium of communication. It cannot be both a medium of communication and have besides a function distinct from that which it communicates, because no organ can perform two functions. It is necessary to transmit sensation to the cortical matter, and motion from it, and the fibres which transmit the one must be different from those which transmit the other. Besides this, there is another kind of communication, and transmission equally necessary, that between the different mental organs themselves. Phrenology has proved that each of the mental powers has a separate organ. If these, according to the theory we are examining, are situated upon the surface of the brain, the greatest part of them have no direct communication. Yet we know that they are continually acting and reacting upon one another. They are, in fact, in the most intimate relation. As no one of them is in direct contact with more than the three or four immediately surrounding it, there must be a most elaborate system of connecting fibres running from one to the other. These fibres must be entirely distinct from those transmitting sensation and motion as they do not produce either the one or the other, nor have they anything to do with our consciousness. Now it would be natural to suppose that these fibres would run directly from organ to organ, that a great part of them would be horizontal, others variously inclined, and that in conjunction with the fibres of motion and sensation they would form of the medullary mass a most complicated tissue of fibres running in every possible direction. It is needless to say that the actual structure of the brain is quite different from this. We must then suppose that all action from organ to organ is, except in the case of those in contact, transmitted angularly, that it proceeds from the circumference to the centre of the brain and up again to another portion of the circumference. Thus, if Individuality is to excite an organ as near even as Comparison, it must first transmit an influence to the centre of the brain, and then up again to the surface, so that we must have at least three sorts of fibres in the medullary mass. All this appears, at least, needlessly circuitous and complicated. According to the theory of Gall and Spurzheim, everything relating to communication is most simple and direct. All the organs of the mind are brought into actual contact as they approach their centres by the interlacing of their fibres, and there they come in contact with the nerves of sensation and motion, and the cerebellum; so that if we are to regard the spinal column and medulla oblongata, according to the opinions of many anatomists, as prolongations of the nerves we shall have all the organs of the nervous system of animal life brought together into a small compass, so that

those which are required to act directly on each other may be in absolute contact. This simplicity is alone a presumption in favour of the truth of the opinion, for Nature is never complex where simplicity may be made to answer.

Again, it may be asked, where is the need of having the medullary fibres so long, if they are mere media of communication? The convoluted arrangement of the cortical substance evidently shows that nature has sought to save room in the head: if so, why make the medullary fibres so long? The shorter they were the more certain and rapid would be their transmission of their respective influences, and the cortical substance could then be perfectly arranged in far smaller heads than those which animals have at present. As things stand, we have Nature lavishing on the one hand, what on the other she seeks by the most ingenious and beautiful contrivances to save. And again, if, in the case of the brain, the cineritious matter is the essential nervous organ, and the medullary a mere medium of communication, why is it not so likewise in all other parts of the nervous system? Should we not expect that in the nerves of sensation the grey matter would be the real organ of sense, and the white a mere channel for communicating the sensation to the brain? And if so, should we not expect that this grey matter would be located at one extremity or other of the nerve, and not accompany its whole course, as it does? But if, on the other hand, both substances are necessary to constitute an organ of external perception and feeling, why should not both be needed to constitute an organ of internal perception and feeling?

Again, a variety of facts have been noticed which show that injuries of the superficial portions of the brain are of far less consequence than injuries of the interior parts. Cases have been mentioned in which portions of the surface of the brain have been carried away by injuries of various kinds without any apparent loss of power: in some instances the mental powers have even been much increased by these means. Various experiments have been made in which portions of the different lobes of the brain, and of the cerebellum have been sliced off, and it was found that no diminution of power was noticed until the sections had been taken to some considerable depth. These experiments proved among other things that the cerebellum was intimately connected with the powers of locomotion, and the anterior lobes of the brain with intellect. All this is in opposition to the theory we are examining. It does not at all seem probable that nature would have placed the most essential parts of the whole body in a position so much more exposed to injury than many subordinate parts, nor does it seem reasonable that injuries done to these inferior portions should be of so much greater consequence than those inflicted on the most important of all parts. Throughout the rest of the body, organs are internal and protected, and vital, in proportion to their importance, witness the heart, and spinal column, and medulla oblongata, and the base of the brain, according to the recognised system. But here we have the most important organ of the body altogether superficial, far more liable to injury than any other part of the brain,—than the heart, than the spinal column, &c., while injuries done to it have far less dangerous results than those inflicted on these other parts. It is also far more liable to diseased action than the internal parts of the brain, as we see in hydrocephalus, in attenuations, and in insanity. If some of these cases are attended with evident diminution of the mental powers, this rather proves that the cortical substance is a part of the mental organ and not the mental organ absolutely. It is clear then that there are a variety of difficulties in the way of the admission of the theory we are considering, let us view it as we may. But even waving all these difficulties, the objection first alluded to is wholly insuperable. All the variations of size and shape in the brain essentially depend on the development of the medullary matter. The differences between man and man in the thickness of the cortical layer, or the depth of its convolutions, can make no difference in the *shape* of the head, and little in its size even. Neither can we see any reason why one shape of head should not answer quite as well as another according to this theory. The essential conditions of this substance in regard to power must be the thickness of the layer and the extent of surface. The mere foldings seem to be altogether a matter of convenience. Thus in hydrocephalus this substance often is entirely unfolded and without any serious interference with the mental powers, and even what there is may reasonably be said to be the result of the general disease, rather than of this particular consequence of it. Now it is as certain as any other truth in science that the varying forms of the head are indicative of variations in the mental manifestations, and by comparing the one with the other,

phrenologists have located the several organs of the mental powers in particular parts of the head; and they invariably estimate the size of these organs by their breath at the surface of the brain, and the distance of that surface from the centre of the brain. No phrenologist can for a moment question the accuracy of these conclusions, for if he does he gives up the very foun lations on which the science is built. The variations which take place in the cortical substance are not of a nature to determine or even indicate the shape of the brain. If then this substance be the absolute organ of the mind, phrenologists have been a sad set of dreamers. When the brain is exposed, there is no difficulty in pointing out variations in the size and depth of the convolutions, but these cannot be ascertained by an inspection of the head or skull, except indeed in so far as phrenologists infer that, relatively speaking, the size of the convolutions will be proportionate to their distance from the centre of the brain: that of two organs in the same part of the head, that which is the largest, in other words whose surface is farthest from the centre of the brain, will have its convolutions also largest. It seems impossible then to reconcile the facts of Phrenology with this theory. Under such circumstances, we suppose no phrenologist will think of giving up so much unquestionable evidence for a mere speculation, objectionable under every point of view. We shall now endeavour to show that all the evidence adduced in favour of this position admits of a far more satisfactory explanation upon principles in harmony with the science of Phrenology.

To the supposition that the cortical substance of the brain is an instrument for generating the nervous energy, whatever that be, we can see at present no particular objection. But to generate a particular fluid and to direct the motions and expenditure of that fluid may be very distinct functions. The stomach generates the blood, and the lungs perfect it, but neither of these organs regulate its motions or expenditure. So it may be in the case before us. Mental manifestation does not depend upon the emission of a certain fluid, but upon the motion of the organ which emits it. If it depended on the action of the fluid, there would be required as many fluids as there are elementary manifestations of mind. Now there is neither evidence of, or analogy for any supposition of this kind. In the phenomena of sound there is not a distinct fluid for every variation of interval and quality, for there would then be required an almost infinite number of them, and these would all have to be extended through space producing an endless confusion, all of which is saved by making sound depend on the action of a single fluid producing effects varied in proportion to the differences in the instrument acted upon. Thus also the same charge of electricity may excite sensations either of light, sound, taste, odour, or touch according to the nervous instrument upon which it acts. The sensation depending essentially on the action of the instrument, not upon the particular cause which excites it. In like manner we must conclude that the rest of the mental manifestations also depend, essentially, on the action of their respective organs, and that whatever cause is capable of exciting that action is capable of producing the appropriate manifestation. Thus we may compare the brain to a musical instrument of many strings, all acted upon by the same agency, but each giving forth a different tone. It may be then true that the cortical substance of the brain is that part of the body which produces or collects the nervous influence, but the fibrous substance must contain those parts from whose action thought and feeling arise. Indeed when we see all the external organs of perception, sensation, and motion consisting of long fibres, analogy would lead us *a priori* to expect that the internal organs of perception, sensation, and motion were to be found in that part of the brain which presented a similar formation.

Upon this view of the matter the various facts observed in connection with this subject appear to admit of a very simple explanation. In all nervous action there is an expenditure of some fluid, or other matter, for the invariable result of all protracted action is exhaustion. If we suppose then that a mental organ is composed of a mass of homogeneous fibres in connection with a species of galvanic pile charged with electric or magnetic fluid, or something analagous, that organ will also be fully charged, while there remains sufficient in the generating apparatus. When the organ is in action it expends this fluid. If the action be gentle, the generating apparatus is able to keep up the supply by a continued production, but if the action be violent, more is expended in a given time than can be produced and exhaustion is the consequence. The medullary organ must then return to a state of rest while the cortical organ keeps on its action until a fresh supply is generated. Now, according to

the respective proportions, and other peculiarities of these two organs will the phenomena vary. The force of the manifestion must principally depend upon the number, quality and activity of the medullary fibres, its duration upon the size and energy of the cortical organ, together with the number and activity of the medullary fibres. Of two apparatuses of equal power that, of course, will be the sooner exhausted whose action is more rapid. A given amount of force may be attained in a medullary organ either by having a greater number of thinner fibres, or a smaller number of thicker ones, as we perceive in stringed instruments. In the latter case, less room will be taken up, and as the cortical organ will require to be large in proportion to the medullary one, and has at the same time a less space to spread itself upon, it must therefore complicate, and deepen its folds. So that its appearance being an index of the activity and energy of the real instrument of the mind, has caused it to be mistaken for that instrument.*

According to these views, the extent of the cortical matter must be proportionate to the number and size of the medullary organs; and the depth and complication of its folds, to the smallness of their bases. As man has more organs than any other animal, so has he a greater extent of this substance, and as these organs by being composed of fine and long fibres have in proportion to their absolute size, relatively small bases, so must this substance have deeper and more numerous convolutions. We see too how it is that we so often find great power associated with very moderate size; and how it is that some persons who can manifest great vividness and strength for a short time are soon exhausted, and torpedo-like, after flashing forth the lightnings of mind, are utterly prostrated until their energies are restored by rest; while others move quietly and steadily onwards, never vivid, but, at the same time, seldom without strength.

But it is unnecessary, at the present, to pursue these reflections farther. Much more might be said upon the subject, and we shall probably have to allude to it again, but much of what remains unsaid will occur at once to the intelligent reader. Many of our remarks are obviously theoretical and conjectural and we would draw a distinction between these, and those arguments founded upon admitted data, or those in which we have traced out the inevitable consequences of the opinions we have combatted. But if we have advanced theories, we have, at the same time had nothing but theories to contend with, so that in the feeblest portions of our argument, we are, at least, on a level with those from whom we differ.

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* On this principle, the appearance of the internal table of the skull may enable us to predict the relative activity and energy not only of the brain in general, but also of the various organs individually.

All phrenologists must be interested in the question of cerebral measurement, and yet it is not the less certain that plans for taking measurements by instruments have been almost universally coldly received, and by none more so than by experienced manipulators. There must be some good reason for this indifference, for men are not usually careless about what they perceive to be their interest, and there are few phrenologists to whom it is not in some degree a matter of interest that there should be a means of taking the exact dimensions of the different regions of the head. At first sight, nothing seems easier than to measure with sufficient accuracy the size either of the whole head or of any of its parts. The orifice of the ear coinciding nearly with the centre of the brain presents a convenient point of departure, and the Craniometer is an instrument that would at once suggest itself to an inventive mind, as supplying the means of measuring from the centre to any point of the circumference of the head. Were there nothing in the way but the mechanical difficulties of adjustment, facility of working, &c., there is no doubt that we should long since have had perfect Craniometers. A variety of contrivances occurred to ourselves when we first began the study of this science, but we must confess that our interest in the matter diminished as our observations became extended. We will state some of the principal causes which render skillful manipulators careless about instruments. In the first place, an experienced eye tells them at a glance nearly as much as they could learn in an hour by the use of instruments, and therefore, for themselves, they would seldom use them, even if perfect ones were to be had. When they hesitate, the callipers, or a piece of tape, both obviously imperfect means, supply them with sufficient data, and their experience easily enables them to make all the requisite allowances. They will not therefore give themselves much trouble about other instruments than these, for the sake of their own observation. As for the observations of others, they will only place

a moderate share of reliance on them, unless they have great confidence in the skill of the observer, and are well acquainted with his opinions in respect to various practical difficulties and contested points in manipulation. Measurements, unaccompained with exact descriptions of the general appearance of the head, could not be entirely relied upon, were they even accurate as far as they go. They merely tell the length of the organ, which is but one of its dimensions. The extent of its base must be taken upon the authority of the observer. But this is a point upon which observers differ. For instance; what we should regard as a very large development of Self-Esteem, some phrenologists would rate as a very moderate one, because they extend the limits of this organ much farther downwards than we do. And so of other cases. Phrenology is not yet sufficiently settled in its minutiæ to enable one manipulator to regard the measurements of another as anything more than approximations to accuracy, unless both are quite accordant in their opinions. For ourselves, we should always prefer a careful description of a head, to the most elaborate series of measurements. But there are more perplexing difficulties than any which arise from these clashings of opinion, in regard to the exact functions or limits of certain organs; difficulties which often leave the observer himself uncertain as to the exact size and position of an organ. Most of these have reference to what is termed the cast, or set of the head and this is determined by the development of the larger organs. When a particular cluster of organs is in large development, all the neighbouring ones lean in its direction, so that the position of organs in reference to fixed lines, will be found to vary not a little in different heads. Thus, if the approbative and concentrative regions are in predominance, most of the organs are drawn backwards and upwards in their direction: if the central region be predominant, we may have a head of the cast of Sir Walter Scott, and so of other cases. When, however, the organs in two nearly apposite regions are both very large, the distance between their bases must be greater than in cases in which the intermediate organs are the largest. Thus if the perceptive organs are large, and the concentrative and approbative regions predominant, their bases will be far apart, and the intermediate organs must consequently have more room to extend themselves in, and the head will slope upwards and backwards. If these intermediate organs were estimated according to their length merely, we should underrate them; if acccording to their extent of base only, we should overrate them. They must, then, be estimated in reference to the predominating organs. In heads in which there is no great predominance in opposite organs, length alone is a sufficient standard of size, but not in other cases. Thus, when the lateral regions are broad, the coronal must necessarily be broad likewise, and we must not require that it should have great height as well. When the head is long and high, we must expect the coronal region to be relatively narrow, and so with other cases.

In regard to ascertaing the exact position of organs, in the peculiar cases we have alluded to, we think an infallible rule may be laid down, viz.: that their bases always touch the same portions of the skull. The different shapes and casts of the bones of the skull will therefore exactly indicate the varying inclinations of the organs. Thus the points of ossification in the parietal and frontal bones, whether they are higher or lower, always indicate the centres of Cautiousness and Causality. Veneration is always at the junction of the frontal and parietal bones, Concentrativeness at the superior posterior angle of the parietal bone, and Combativeness at its inferior posterior angle, &c., &c. Therefore, the organs placed at the edge of the frontal bone, for instance, need never be looked for under the parietal bones, whatever the cast of the head, and so of all other parts. The reason for this is, that as the growth, &c., of the skull is in all cases regulated by that of the brain, and as each organ of the brain is in some degree independent of the others, there must be a special connexion between each, and some determinate portion of the skull, so that when one grows the other of necessity grows too, and *vice versa*. This law, as far as we have observed, is equally applicable to the inferior animals, so that the organs which they possess will be found under the same parts of the same bones as in the case of man; and we shall see as a consequence, that they want those parts of the frontal and parietal bones which cover the organs peculiar to man. As the sutures can be felt in the living head, there need not be much difficulty in fixing the positions of the organs, but it is sometimes a delicate task to decide upon their exact limits and size. This it is that renders the mere length such a secondary affair; and until the department of Phrenology we speak of is more advanced than it is, manipulators will give themselves little trouble about craniometrical measurements.

As to the position of the ear, we do not think it any difficulty. Whether high or low, it is, equally, opposite the centre of the brain. It is not pushed down by large Destructiveness, for instance, for it will usually be found lowest in high and narrow heads. Its place, in fact, is stationary; and what makes it appear higher or lower, is the inclination of the perceptive and social organs. When these therefore are elevated, the ear appears low down; when their direction is more horizontal, it appears higher in the head; but in either case it is equally indicative of the centre of the brain.

CORRESPONDENCE.

To the Editor of the People's Phrenological Journal.

SIR,—I have been absent from London for some weeks, and find, on my return, that you have commenced your Editorship of the "People's Phrenological Journal" with an attack on my view of the functions of the Cerebellum; and I trust it was but the novelty of your position which induced, I think, a little uncalled for exercise of power; for after such fashion has Phrenology itself been disproved again and again in the Edinburgh and Quarterly Reviews. But as truth never yields to the *dictum* of any man, Phrenology lives on a noble tree, sending forth its spreading branches to shelter and protect the weak, itself thriving in the storm, gaining additional strength from every adverse wind that blows; and such, I believe, will be the fate of my poor discoveries of the true functions of the Cerebellum: and I am strengthened in this belief by many able friends, and those best qualified for the investigation, who have found my explanation sufficient to enable them to test the several points, and are fully satisfied of the general truth of what I have advanced; and since reading your article, I am only convinced the more of the reality and value of my discoveries.

I do not conceive that you are justified in calling upon me for further explanation, or to answer any objection you may think right to make, since I have distinctly stated in my paper, that it is not my intention to go into any further explanation, until the general facts upon which I have founded my views should have been tested by others; and it was my earnest request, that any who were disposed to question the truth of my assertions, would first appeal to nature, so that they might judge with knowledge, and set forth their objections with a better grace. But it appears, that you consider it quite unnecessary to follow such a mode of proceeding. With you, it is not essential that induction, concerning novel things, should be preceded by experiment. You have only to trim your lamp, take up a full pen of ink, *and reason*, being quite satisfied that if my views are opposed to reason, the question is settled, and it is useless to trouble ourselves any more about the matter. Oh, for the faith of man in his power to reason! How many facts in Astronomy and Geology were supposed to be unreasonable, whilst Phrenology and some of the simplest truths of Mesmerism are still opposed to the reason of some men, to what they have considered to be the laws of nature, for reason is but the connection of those facts with which we are acquainted; so that, arguing within the measure of our acquirements, we hastily generalize on insufficient data, fix our faith, and wage war against every novelty as it appears, and stands there impertinently opposed to our previous judgments. Hence arise all the evils of criticisms, and much of the injustice of journals, whilst the power to dictate and contend, too often induces a notion of the value and the right to war; and hence the discoverer of any new truth, has every impediment thrown in his way, neglected in his day, living only in the hopes of another age. It is true, Sir, in my case you offer me space in your journal, and call upon me to answer your attacks; but you have no right whatever to force me into such a discussion—a discussion which could not possibly end in any useful result. Nor is a journal for the people a proper field for such gladiatorial exploits; but I would ask you on what authority you assert, that I have founded my views on a few dashing experiments, when it were impossible that you could infer such from the statements in my paper. Indeed, a portion of almost every day for more than two years, has been devoted to the subject. Again; you unjustly and sneeringly assume, that I draw my conclusions from the mere assertions of a mesmerised lady—an assertion without a shadow of foundation, having distinctly explained the various means by which I have been able to test the different points I have advanced, for I have no faith whatsoever either in the waking or sleeping thoughts of others, excepting so far as they may prove to be true; though I dispute not the assertions of any one, yet I suspend my judgment till the fact appears, giving all due credit to the opinions of those who have proved themselves qualified to give judgment on any particular class of evidence.

But I have not considered that, in addressing the members of the Phrenological Association, I was appealing to those who are incompetent to test by experiment and observation the simple matters which I had to propose; and those who are unable to carry out experiments through the means which Mesmerism affords, might, I think, have waited patiently for the confirmation of those who were, or, if they chose, investigate the subject in the ordinary way—a point which you appear to have overlooked when complaining that every one is not able to mesmerise with sufficient power to make the requisite experiments; and immediately continue, "that a phrenologist of the old school might very fairly tell his auditors to make observations for themselves, on any particular parts of the head, in reference to alleged discoveries, because the materials for observations are always at hand,

and it requires but a moderate degree of skill to judge in strongly marked cases."

That I have not furnished you with any thing like a full statement of facts is true, but I had good reason for this, I did not wish to give forth my views hastily to the public in a completed form, nor to impress the minds of mesmerisers with the precise effects which they might expect to find, so that their testimony might be of the greater value when compared with the results of my own observations, and the objections on accouut of sympathy and suggestion have less weight, and besides which, I could hardly have gone into farther explanation without entering upon other important discoveries which would only have appeared more startling and perplexing to those who were not yet in some measure prepared for their reception. That I have set forth my opinions with some show of confidence I am aware, for I considered that unless I did so, few would be induced to give the matter their attention, but in this I have endeavoured to guard against any appearance of presumption, and you may remember that some of my views have been published a whole year without apparently arresting the attention of a single individual; and again it were perhaps essential that I should express some confidence in the results of my experiment, ere many would think themselves justified in exciting into action that portion of the brain considered so long to be the repository of the amitive feeling alone. I do do not consider that any of your objections present the least show of reason against any one of the points which I have endeavoured to establish, and I remain at a loss to comprehend your inability to perceive the possible existence and the necessity of an organ for muscular action, inducing the desire of physical exertion and exercise; and a most important one in the economy of life, conveying a knowledge or sense of the state of the muscles, either whilst passive or in action: a power so essential in regulating the action of every movement, and again of an organ distinct from these, an organ of physical force, how it is that you are at a loss to comprehend the existence of these powers as essential and distinct from the rest, I cannot understand. But your chief objections are in reality concerning that which I have never advanced, for what I have merely thrown out as a suggestion, you argue from, as though I had asserted such to be matter of fact, a suggestion too, which in my corrected report of the paper published in the "Zoist," I have omitted, but which suggestion you altogether misunderstood, I allude to where I say that it is *possible* that a portion of the organ of muscular action, may have *relation to* (meaning simply that it may be concerned in) physical destruction, and the rest, physical contention, and continue, though probably the primitive powers are the simple sense of action, and again to contend or overcome, and to which your objections do not in the least apply, but all of which I have omitted in my corrected report in the "Zoist." You further object to the centre portion of the cerebellum being an organ having several distinct functions, which I have never supposed, and if you refer to the report in the "Zoist" to which I have alluded, you will perceive that I speak distinctly of a group of organs and point to some of their localities. And now in conclusion I shall only repeat that presuming the several points which I have advanced to be true, a very important addition has been made to Phrenology, "and that indeed we seem to have completed in a most beautiful and satisfactory manner what was deficient and that which has been the cause of so much controversy, a knowledge, the importance of which to our health and happiness we can scarcely too highly appreciate," and in due season I trust to make this apparent; in the mean time let us converse continually with Nature, and with all humility and without prejudice weigh over again and again the evidence as it appears, nor ever seek to cast impediment in the way of the advance of knowledge, and putting aside the pride of reason, judge all things by the facts accumulated in a multiplied experience, for philosophy which is not founded on experiment, must ever be worthless.

Let us leave the scholastic wanderings of the metaphysicians, and dwell only on material science which is nature. And now sir, with every wish for the success of your journal let me thank you for your good opinion of my talents though it be a strange anomaly that one whom you consider to be "a clever man and a good reasoner," should so forget himself in this one particular to which you are opposed, when advancing some novel views on a most important subject and which though founded on evidence which may be tested in fifty different ways, you consider nothing but "a mass of confusion and vagueness, utterly unphilosophical, utterly unreasonable, and leading to endless contradictions and absurdities," strange inconsistency? but time will make all things plain.

Your Obedient Servant,

HENRY G. ATKINSON.

18, *Upper Gloucester Place.*

January 25, 1844.

To the Editor of the People's Phrenological Journal.

SIR,—I beg I may be allowed to say a few words through the medium of your valuable journal, in answer to some observations contained in the "Edinburgh Phrenological Journal," in reference to the Craniometer invented by me, and published in the "*People's Phrenological Journal.*" In answer to these observations, I feel bound to state, in the most explicit terms, that whatever may have been invented or published by others, this invention, so far as I am concerned, is in the fullest and most absolute sense original. Never before having heard or seen anything bearing the remotest approximation thereto, I feel called upon to make this statement, with no other view than that truth and integrity should have their proper places. I had not long been studying the science, before I saw the want of some such instrument, which,

when completed, appeared to my mind so well adapted for the desired purpose, and yet so simple in its construction, that for a considerable time I could not persuade myself but that there must be some unobserved defect, or so simple an instrument, apparently accomplishing so much, would long ere this have been invented by some of the many master minds who have devoted themselves to the study of Phrenology. And, in all probability, it would never have appeared before the public, had I not been induced to do so at the instigation of several most intelligent members of the Liverpool Phrenological Society, which ranks, perhaps, as much intelligence and ability as any other provincial society.

In reference to Mr. Preston's reputed improvements, it affords me much pleasure to acknowledge his ingenuity and mechanical skill; but at the same time I have to regret that he, or some other of your intelligent correspondents, does not see the necessity of first settling the question as to the possibility or impossibility of determining the size of an organ by measurement of any kind. His introduction of astronomical terms is certainly very apposite, and the additions suggested by yourself, (whether in earnest or not,) I believe will be found exceedingly convenient, when the science will have advanced near its *ultimatum*, in reference to the real number of primitive faculties comprising the entire of the human mind. In astronomy, it greatly assists the mind in grasping the names, numbers, and localities of the apparently innumerable stars which lie scattered through the "great expanse." And when all the fixed stars which lie scattered through the two hemispheres of the brain shall have been discovered, then some such plan as grouping them into constellations, and distinguishing them by alphabetical signs, will be called to the aid of Phrenology. But, after all, discovering the exact longitude and latitude of an organ, (admitting that four cardinal points may be discovered to correspond in all heads alike, and that each of the organs bear the same relative position to these points, which I am persuaded is not the case,) is a very different thing to discovering its true and real size, and, consequently, one element of power, this being the prime object for which the instrument was originally intended. In reference to the reversion of plan which Mr. Preston somewhat compliments himself for, my own opinion is, that no one can be better able to make, or superintend the making of an instrument, than the original inventor, (which Mr. Preston is, with regard to the proposed improvements.) Therefore it would be requisite, that "some of the London gentlemen" should not only risk the expense of making an instrument of another person's invention, but send for Mr. Preston to superintend the work, and this before the merits of the instrument for accomplishing the desired purpose have been fairly canvassed. A very economical mode of proceeding, certainly. Whatever Mr. Preston can afford, he calculates largely on what others can. It's capability of taking the outline, section, or general size of the head, I have already noticed as being altogether it's leading features, and those being of no mean consideration; and all Mr. Preston's proposed improvements contribute little or nothing in addition on this point, they chiefly consisting in the better fixing of the instrument on the head: and whether an individual would feel more at home to be thus screwed and braced, or deprived of hearing, (though this inconvenience can be obviated by hollow bulbs,) for a short time, is at least questionable.

There is another remark which I feel tempted to make before I conclude, and which I should not do as not being directly connected with the matter under consideration, did it not involve an apparent contradiction to the truth of Phrenology: but as Mr. Preston generously offers his head "for the inspection of any phrenologist who thinks the subject worth enquiring into," it relieves me greatly from the necessity of an apology for the liberty I take. A few lines higher in the same column, he says of his own head, "Philoprogenitiveness very large; Concentrativeness, adjoining to Philoprogenitiveness, large; from which, as it proceeds upwards, it diminishes rapidly to the organ of Self-Esteem." This last organ, always being considered to be the one which induces the frequent use of the pronoun *I*, I must confess myself somewhat puzzled to account for the number of pronouns of this description to be found from there to the bottom of the column. Perhaps, Mr. Editor, you can solve this rather paradoxical position.

I will just remark, that it would be well to discuss the possibility of ascertaining the size of an organ, by any mode of measuring whatsoever, before anything further is said about improving the instrument, or we may produce one more, to the already too many, editions of the mountain in labour.

Your's very respectfully,
ROBERT JONES.

Liverpool, January 22, 1844.

PRESTON'S PERFECT CRANIOMETER, SCALE OF SIZES, WITH A WORD ON RACES.

To the Editor of the People's Phrenological Journal.

SIR,—In your note to my last letter, you speak of taking the longitudes and latitudes of the organs to seconds. This I consider to be impossible; but it may be done to minutes by the means of nonius scales, and the measuring scale for the distance from the centre of the head, may by the same means be divided to an hundredth of an inch. But there is another remark to be made, of serious consequence to the truth of the observation; for if you consider what is said, p. 194, vol. i., on Destructiveness, viz., "When the organ is large, the meatus auditorius, or opening of the ear, will be found lower down relatively to the external angle of the eye, than when the organ is small." If this

be true, it will have the effect, with either Mr. Jones's instrument or mine, to make the organ of Firmness larger than it should be, and the organs near that locality the same, but in a less degree. Hence the meatus is not a true place to adjust by, and there must be another place which will be above the meatus; therefore Mr. Jones's instrument could not possibly be adjusted to give the truth, but my instrument will admit of such an adjustment, which I will shew as soon as I get an instrument. But it appears to me, that what I always thought before I had any knowledge of Phrenology is true; viz., that the more any person is possessed of, the less is his Benevolence,—and I still think the same, for there is no appearance of those who are rich having any desire to encourage science; but as soon as I mentioned the case to a labouring man, a phrenologist, he answered, "Let our class of phrenologists subscribe two-pence or three-pence per week to get the amount required." Thus it appears, that the poor must encourage science for the use of the rich.

I shall now say a few words on the subject of sizes, as I have not seen any other explanation in the Journal, and Ethnology not being brought to any available degree of perfection, the old method must therefore be used until that is available. To establish a correct scale of sizes with my Craniometer, measure two or three hundred heads; among which, take the largest of each separate organ as the maximum, and the smallest as the minimum, for male adults, and the same for females, and form a table of these; do the same for males and females, of a certain number of younger ages, till you come to about five or six years of age: when this table is completed, it will be a general guide for any future measurement. Thus, suppose the maximum of the organ of Philoprogenitiveness for males to be four and two-tenths inches, and the minimum three and four-tenths inches, the difference between which is eight-tenths, if the size of this organ in the head under observation is three and eight-tenths inches, from this take the size of the minimum, three and four-tenth inches, and the remainder four-tenths; then, if we take a scale of seven, say as 8 : 4 :: 6 =7—1 : 3. This three added to one, is four, the estimated size. Had the scale been 13, then it would have been 8 : 4 :: 12=13—1 : 6, and 6 added to 1 = 7, the estimated size to judge by. The same method being pursued with each of the other organs, it will give the just value of the organ according to that scale.

Before concluding, just a word with your correspondent, Mr. R. Jones. He says that I speak depreciatingly of Mesmerism. In this, allow me to say, he labours under a great mistake, for I believe Phrenology is true, Ethnology is true, and Mesmerism is true. What I speak against, is some would-be-mesmerisers making shows of it, calling out, "Walk in ladies and gentlemen, and see these great wonders—a living lion stuffed with straw, and a dead man kicking a blind man's eyes out." And for other objections, see what the former Editor has said on the will of the mesmeriser acting on the will of the mesmerised, and likewise what Mr. S. Merryweather has said on Cerebro-mesmerism, p. 167, vol. ii. And along with these let it be considered, that there are about thirty million inhabitants in Britain; and if we suppose that out of that number there are a thousand mesmerisers, then there will be thirty thousand people to each mesmeriser, and out of this number there are a great number not susceptible of Mesmerism. Then how are the people in general to be manipulated? Therefore the mesmeric organs are of little or no use, and this is why I have called Phreno-Mesmerism no better than complete nonsense. But for the alleviation or cure of disease, somnambulism is not required, and almost every one may be a mesmeriser. Mesmerism, then, is placed within the reach of the poor, which would not be the case on Mr. Jones's plan; and by these kind of means thousands die annually for want of assistance, through the avarice of the medical profession, and I might have said, their shameless extortion.

Now for the organ of Swimming. Is there any such organ? Is this not better and more rationally accounted for by Ethnology? On this head I could mention an example, but it is useless.

Again; as to the organs of Idleness and Industry. I am well satisfied that the differences between individuals, in respect to these peculiarities, spring from difference of race; and whoever will take a trip to Hindoostan, as I have done, and remain twenty-five years amongst the inhabitants, will find that the Hindoos are more addicted to idleness than the Mahommedans, and that some districts are more addicted to idleness than others. I admit that the heat of the country is one cause of idleness, but this does not make the different towns and districts to vary in this respect. This must originate from differences in the races, and nothing else, I think, can account for it.

Your's very respectfully,
EDWARD PRESTON.

Oldham, January 22, 1844.

To the Editor of the People's Phrenological Journal.

MR. EDITOR.—One oversight in taking calliper measurements appears to me to have occurred, which is the omisssion of taking the diameter from meatus to meatus. That there is a difference extending to not less than one inch in this, examination will most likely verify. A few observations I have made show it to be so, but of its holding generally those only who make a practice of manipulations can determine. If we take the thickness of the face as an indication, observation in any thoroughfare will convince any one that the above is not the maximum difference. And as the length from the meatus to any organ, varies about one half this difference of diameter, every medium calliper admeasurement yet calculated must, on that account be very imperfect. Nothing will

adequately compensate for this omission, as the ears may be low or high, as well as the space between them narrow or broad. But this done, the dimension of every head can very easily be laid down on paper and thereby to some extent relieve us from the necessity of having an outline to know the actual general shape of the head: indeed we may possibly be able to do more than this from calliper measurement.

I am dear sir, most truly, &c.

A SUBSCRIBER.

Jan. 10*th*, 1844.

EXTRACTS.

FOURTH ANNUAL REPORT
OF THE
CRICHTON ROYAL INSTITUTION,
FOR
LUNATICS,
DUMFRIES,
ELEVENTH OF NOVEMBER, 1843.

(Continued from page 191.

Two mothers may be met in our galleries anxiously occupied in nursing gigantic dolls, and in bestowing upon them the boundless love which can now have no other object. The dress of these figures is a matter of pride and attention, their health and interests are watched, medical advice is solicited, physic and food offered, and the whole routine of the nursery closely imitated. A melancholic turns and twists the body like a Torso, and displays the most extraordinary contortions into which supple and trained muscles can be thrown. Two men never use the right hand, perhaps because it has offended them; two touch particular objects with either hand; one steps only upon certain spots in walking; another confines his movements to one spot; two run rapidly from point to point; one walks in straight lines, never diverging from the course he has laid down; a lady walks and waltzes constantly in circles; one person walks diagonally across the galleries and passages; and two walk backwards. Besides numerous examples of the extinction, there are seven of the vitiation and depravation of appetite. Impelled either by urgent hunger, which seeks gratification in defiance of the other feelings and instincts of nature, or by a total corruption of those tastes, and a loss of those antipathies by which the selection of edible substances is regulated, the patient devours whatever can be masticated and swallowed. It may be impossible to subdue this perverted inclination; but it may be modified and restrained by a liberal and frequent supply of proper aliment, and by attention to the state of the stomach.

There are many inmates who, unable to sleep or take repose, or instigated by that restlessness which seems to be coincident with rapid thought and excited feeling, but which is controlled and moderated during the day by discipline, occupy many hours of each night in walking and watching. Of the twenty which at present habitually indulge in these vigils, many are not violent or noisy; but calmly and silently seek in motion and in reverie that solace which others find in sleep. Some of these are somnambulists. Another and more extensive group, thirty-six in number, pass the same time in speaking. In these cases language is made the vehicle of feelings: their incoherent narratives or ejaculations are significant of the continuation of that current of thought which prevailed during the day, disclosed more unreservedly and boldly. Such ebullitions may consist in prayers, or objurgations; in complaints, or songs of joy; but they are generally sincere, and deserve to be studied as evidence of the state of mind of the individual. Of those arranged under this head, several give utterance to their conceptions while asleep, but many obstacles prevent the precise number from being ascertained. A plan of escape was detected from the revelations of a patient during the night, and frustrated. The night-watch, under whose observation such practices especially fall, is still found a most indispensable officer. His reports are most valuable indices of the more inaccessible symptoms of insanity; they make us acquainted with another half of the life of the insane; they raise the veil from their secret thoughts, their hidden habits; they exhibit them, when beyond the reach of surveillance and discipline, and when delivered up to the freedom of their own passions and will. Esquirol has wisely said, "On n'a pas une veritable instruction sur l'alienation mental si l'on n'a souvent observé les aliénés pendant la nuit."

In addition to the suffering which may arise from the consciousness of their own infirmities, or from imaginary sorrows, the insane are subjected to innumerable annoyances from irksome, unpleasant, or actually painful impressions referred to the organs of sense. The uneasiness, the sensation is real, the error resides in the conclusion drawn as to its nature. There are five patients in the Institution who imagine that they detect disagreeable sapors in every article of food. Two of these attribute the taste to poison; two to the want of culinary art in preparing the food; one is disturbed by the nauseous taste, but does not investigate its cause. There are ten individuals who, probably from similar although unacknowledged causes, do not swallow the saliva, but eject it laboriously and systematically. Four patients are tormented by noxious oppressive odours which do not exist, or are not perceptible by others. Eight are compelled to listen to and believe in the reality of sounds which arise in and are re-echoed within their own ears. Nine people the air, and especially their silent, solitary bed-room, with shapes and visions, which are as distinctly and visibly present as the solid chairs and comfortable bed which they can touch and use. These phantasies are in four cases the reproduction of images formerly impressed upon the memory, and suggested by the fears or affection of the ghostseer; in two they are conceptions created by an alarmed conscience, consisting of beautiful or repulsive embodiments of God; in two the spectres are animals. In one of these a favourite horse occupies the same chamber as its former master, and is addressed and caressed as if worthy of fraternal care; in the other, serpents crawl out from every chink and crevice and encircle the body of the visionary. Peculiar sensations of softness and smoothness of the skin, neuralgia of the surface, the hallucination that the extremities were constantly galvanised, and that the whole body was in a state of combustion, igniting the clothes and melting the iron framework of the bed, have been noticed in seven patients, and have generally occurred in incurable or protracted cases.

Yet, startling as some of these peculiarities are, they are assuredly much less numerous and less extravagant than formerly. The incessant watch-

fulness now exercised to arrest and destroy in their birth the vicious practices and ridiculous eccentricities of the insane, the restraining, modifying influence of a well-adjusted system have stripped the disease of many of these extraordinary traits which were at one time witnessed in every Asylum, have given a sameness to the external characters, although the secret bias and visions and delusions may be as various as before, and have cast all the patients in the same mould. One great aim is to introduce order and harmony, and the whole merit of the change is that the healthy powers are elicited, and engaged in concealing the signs of riotous and rebellious propensities, and in paying a tribute to reason by imitating its deportment, although it may be impossible to recognise or obey its laws. And where discipline does accomplish this, the insane of the present may be safely said to be less irrational and absurd than the insane of past ages. These additions to the invariable symptoms of insanity complicate and derange the most perfect and and philosophical system of management.

It may serve to illustrate the mere mechanical workings of the Establishment to detail the acts and arrangements of one day. At seven in the morning, the Night Guardian closes his report of the past eleven hours; the Superintendent carries round the razors, scissors, knives, &c., assorted in labelled cases, to the different galleries and private apartments. The apothecary follows to ascertain that the patients have left their sleeping-rooms, or are about to leave them; to receive the verbal statements of the attendants; to examine into any urgent case where either new symptoms have appeared or any aggravation has occurred. The scene at this time is one of great disorder and of danger; for, whatever precautions may be taken, the progress of so many toilets, the number of points requiring attentions, the various duties to be performed, tax and may baffle whatever care and circumspection are employed. Breakfast follows at eight o'clock. It has been recommended that a portion of the Bible should be read aloud at this stage whenever circumstances will permit. At nine, the carriage carries a boarder into the country. At half-past nine, the razors are collected and placed in the laboratory. The tobacco and snuff, to which the industrious are entitled, or which long habit has rendered necessary, are now distributed, and the business of the day and labour are commenced. The labourers proceed to the grounds; and knitters, sewers, laundresses, kitchen-women are provided with occupation. At ten o'clock, the omnibus conveys two private parties to some favourite spot in the neighbourhood. The regular medical visit commences at the same hour. Every patient is seen, scrutinised, conversed with, prescribed for; delusions are exposed or repressed, that repetition may not imprint them deeper in the belief; errors are corrected, anger appeased, sorrow soothed; new directions given to contemplation; occupations and amusements recommended. Were five minutes accorded to each expectant, the examination would require a period of nine hours; but although many exact a large portion of the Physician's time, as others decline all intercourse, it actually occupies three. While this is taking place, the carriage has returned for another boarder; parties are working in the grounds, engaged at billiards; and all who are not indisposed or otherwise employed take exercise in the balconies and airing-yards. At twelve, the wine, spirits, and porter, are served out by the apothecary, and conveyed to the various individuals for whom they are ordered. At one, a bell, which announces all meals, departures, etc., intimates the cessation of labour, and that dinner is served. The Matron passes through the galleries to ascertain whether the meal has been abundant, properly prepared, and by whom taken; and should any have abstained, a report is made to the medical officer, who orders the exhibition of food, should it be deemed necessary; but this is rarely done until a refusal to eat has been persisted in for forty-eight hours. At two, labour, exercise, and amusement again commence; the omnibus receives a large party of gentlemen and intense is the desire to be included, and bitter the jealousy and disappointment should partiality or irregularity in the arrangements for the different classes be detected. At half-past three, the carriage goes out for the last time. From one till four, such medicines as have been ordered are furnished to the attendants. At four, a second visit is made to all persons who are in bad health, who have been excited, who have refused food, or solicited interviews. Two lists are then prepared: one containing prescriptions, one communicating instructions to the night-watch, as to the patients who especially require his visits and care. If sickness exist, a special nurse is appointed. About the same time, the matron is generally in company with the ladies, who play or listen to the piano, or join in impromptu concerts and dances. Tea is served at five o'clock, which is likewise followed by exercise, amusements, by a departure of parties to the theatre or concert, should such be accessible, and should no domestic entertainment present stronger attractions. At half-past seven supper is served up. At eight all retire to rest, except where indulgences have been granted for study or amusement. The apothecary and superintendent then examine the state of the whole house; ascertain that all patients are comfortably placed in bed; that the clothes have been removed from each room, and folded, so that the number and state of the articles may be known; that no furniture but what is absolutely necessary be accessible; and inquire into the state of every individual. The night-watch then receives his final instructions, visits all parts of the house, enforces the punctual attendance of those intrusted with the care of suicidal patients, extinguishes all fires and lights, and writes a report of the events of every hour for the inspection of the medical officer. Such is a very meagre sketch of the transactions of a day. It does not, and is not intended to embrace the moral management; these supplementary and accidental duties, such as feeding those who will not voluntarily support nature, admonishing those who have offended, reasoning with those who admit and may be influenced by argument, or those long conversations which have entertainment or instruction as their object, it does not and cannot include the multifarious items of domestic policy which remotely but powerfully affect the objects of care; but it gives the skeleton with which the nobler and better parts of the system are incorporated, and displays that humble but anxious solicitude for the health and comfort and safety of those who disregard these, or depend for their continuance upon the assistance of others.

It is to be lamented that so little information is supplied as to the cause and progress of the cases

placed in isolation. Many individuals are subjected to treatment, of whom nothing is known, nor can be ascertained, except the name and parish. Their own statements must be regarded as apocryphal, or be received with extreme caution. This paucity of data, upon which to found an analysis of the character which is to be dealt with or a scheme for the amelioration of moral suffering, is often the result of negligence or ignorance; sometimes of that false shame, or fruitless caution, which would keep family diseases under the same veil that conceals family misfortunes and misconduct. Such a course frustrates the great ends in view, and witholds one powerful lever by which the removal of disease may be accomplished, and the burden of regret, and remorse, and error, may be cast off. There is, however, a difficulty in deciding what *is* the cause of the overthrow of intelligence, of selecting from a mass of events, from a long succession of depressing and debilitating feelings, that particular point where health and sanity terminated, and disease commenced; that particular state of affairs, or body, or motion, which led to the final change and catastrophe. An insignificant and inadequate circumstance may be fixed upon: it may appear directly to have preceded and premonished the attack of insanity, and yet, upon investigation, it will be discovered that the seeds of the malady have been sown and nurtured in the system for years; that the current of thought has been polluted or perturbed from its very source. The causes of the disease lie deep. They must not be sought for on the surface of society, in the visible events, in the misfortune of individuals, in the sudden revolutions of the wheel of fortune, in the panic or the glut of commerce; but in the frame work of the social machine, in the prevailing temper and temperament, the education, the transmitted character of the generation, in the susceptibility, the impressionability of the mass. When this influence is referrred to education, it is not to the mere communication of knowledge, properly so called; but to the physical training, the habits of thought, the opinions, the impress and impulse imparted by the time, the moral institutions, the prevailing tastes and pursuits. There are in some ages predominant characteristics of certain bodily qualities, as of the nervous system; a peculiar delicacy or effeminacy of fibre, a morbid refinement, a luxury of sentiment, a panting after strong excitement, which predispose to mental disease, and should be kept in view.

There is, for example, a female in the Asylum, whose illness is attributed to a recent convulsion in the Established Church, in place of the high-wrought feeling, the long course of powerful religious impressions, and controversial anxiety, which preceded that event. There is, in like manner, a gentleman whose condition is traced to disappointment, while the dissipated and irregular habits, the irritable temperament which led and gave poignancy to his misfortunes, are altogether omitted. The obstacles to a true exposition of the relation of external circumstances to the development of insanity, have led to the distinction of predisposing and proximate causes. That condition, or course of conduct, or habit of thought, which renders the mind prone to be disturbed, susceptible of exalted and ungovernable activity, and less capable of resisting the ordinary calls upon its powers, and the inevitable pressure of duty, or labour, or pleasure, has been distinguished from that event or events which, acting upon this susceptibility or weakness, either excite the disease, or bring its features into view. But this division is arbitrary and inapplicable. The causes are often transposed; or what is truly a symptom of the disease is assigned as the cause. Where intemperance is represented as the source of the malady, it is clearly proved that repeated acts of intoxication at the same time predispose, excite, and constitute the main feature of the affection. Where it is attributed to pride, the natural disposition is assumed, and it may be correctly assumed, as leading to an unhealthy condition of mind; whereas it will be found, that the ill-balanced understanding which yielded to the influence of the sentiment, or the changed disposition of the individual, were equally instrumental in subverting the stability of reason. Or, where a physical disease is supposed to interfere with natural character, the history and the moral relations of the patient are forgotten. The truth is, that the appearance of insanity is to be referred not to one, but to many circumstances; to the tenor of a whole life-time, and not to the occurrences of a day or hour; to a multitude of hidden springs, which can neither be readily discovered nor appreciated. In a vast number of instances, the susceptibility, however much it may be aggravated and augmented by the conduct of the individual, has been transmitted, and is transmissable. Although in the vague records sent with patients, predisposition, which may apply to the individual or to his ancestors, is adduced as the specific and sole cause in only four cases; yet in no less than thirty-three has a hereditary tendency to some nervous affection been traced; while in twenty-two of these the taint led directly and unequivocally to derangement. In several, the evil has descended through many generations, has been coeval with the lineage of the race, and so wide as to involve the members of a whole family. One example may be quoted as illustrative alike of the degree to which, under various aspects, such a blight may extend; and the production and propagation of that morbid tone of mind which places every man in peril, and may terminate either in the brilliancy of genius, extravagance of imagination, or in madness. A man of great talent, erudition, and enthusiasm, but predisposed to mental excitement, entertained a profound respect for knowledge, wished to render his children distinguished in some of its departments, especially in classical literature, and subjected them to a most severe and exhausting discipline during education, a discipline calculated to break down both the mental and constitutional energies, to destroy life or reason. The *apparent* results of this system have been, that one son has distinguished himself in works of fancy, and possesses a mind of exquisite delicacy, but morbid, irritable, and ill-balanced; a second is an irreclaimable drunkard; a third is an equally irreclaimable opium eater; a fourth has become imbecile; a fifth was under my charge; a sixth is of sound mind. The daughters, who received different training, are sane and well. The fabricator of this tangled web of human misery, unhinged by study and soured by disappointment, died delirious.

The sound intellect resists with difficulty constant contact and communion with the insane. There is suggested such an extravagance of sentiment in the intercourse, such a distrust, irritability, and confusion of right and wrong, truth

and falsehood; and there is required so sustained a strain upon the observation, so powerful a check upon the passions, that the healthy tone, if not the equilibrium of the mind, suffers in the relation. The partially deranged, the tranquil and docile monomaniac, in the same way, are injured by association with the furious and agitated. Excitement is infectious; delusions have been multiplied, and even imparted; terror, and disorder, and dislike, have been the consequences of mingling together those who can and those who cannot control their passions; and scenes of confusion and animosity have arisen, where all should be harmony and peace.

In accordance with these views, a small separate gallery containing ottomans which cannot be broken or injured, gas pendants which cannot be reached, and which immediately adjoins the sleeping apartments of its inhabitants, has been appropriated to the irreclaimably violent and destructive; and the public rooms have thus been relieved from the noise, and turbulence, and actual misery, which the manifestation of morbid and malignant feelings infallibly produces, and insured that quietude and composure, and those opportunities for reading and occupation, which are necessary conditions of the return to health, if they do not act directly as remedial agents. Nor is the gallery for the furious a penal habitation, although it serves as a place of exile for those who oppose the constituted authorities; nor is it a focus of ferocity and vindictiveness, Quietude and order reign there for days. Children enter it fearlessly, and mingle with the patients, who appear to be tranquilized by the smallness of their numbers, by the withdrawal of enjoyments from which they are debarred, and the absence of that arrogance, intolerance, and tyranny, which their fellow-sufferers so often and so harshly exhibit. Extending this principle of segregation further, a gallery has been filled with convalescents, and with those who rarely interrupt, and may be benefitted by, the rational intercourse, the pleasing pursuits, and the correct manners which prevail around. Music, painting, reading, cards, chess, here constantly engage the attention; gratify, cultivate, or call forth former or familiar tastes; displace that brooding melancholy which the monotony and idleness of confinement so often engender in the active and educated mind, when freed from delusion; and assimilate the situation of all admitted to that which they expect, and are expected to occupy on restoration to society, and secure all the advantages derivable from the converse of the rational, the example of the tranquil and decorous, and the constant succession of agreeable, enlivening, and elevating impressions. The consciousness of the superiority of caste, of enjoying a greater amount of confidence, and a greater number of pleasures and privileges, acts favourably, and, while appealing to the selfish part of the character, encourages that self-control and forbearance and amenity of manners, which constitute the chief bond and ornament of social relations. There is deep regret and bitter recrimination when expulsion from this part of the house is considered necessary, and a strong desire to be considered worthy of admission. It now contains two clergymen, one physician, one banker, one officer, and one man of letters and others, and forms the most formidable test of the superintendent's patience, judgment, and delicacy of tact. The strength of returning reason, and the dexterity of minds habituated to think subtilely, are to be encountered, as well as the cunning of distempered emotions. The pleas for liberation, the dread of an impending paroxysm or of some new affliction, the arguments to demonstrate that fever or fancy have been mistaken for derangement, that friends have been timid, or suspicious, or unkind, and neither discriminating nor disinterested, are inexhaustible and most perplexing; yet the existence of such a place, so well regulated, so quiet, so characterised by the thoughts and habits of educated and rational men, is somewhat astonishing, even to those who pass their lives amid the wonders effected by moral control. From the class now described, are principally drawn those who join in the amusements and intellectual employment provided, although others are participants.

Besides the daily exercise and carriage drives, many excursions have been taken to Caerlaverock, Newabbey, Friars'Carse, and to the usual haunts of tourists. Upon some of these occasions, the party has been augmented by respectable strangers, whose presence, new direction of thought, accomplishments, and friendly attentions, dissipated the appearance of restraint and superintendence, suggested new views, and opened up healthy stores of enjoyment.

(To be continued.)

ANSWERS TO CORRESPONDENTS.

Tyro.—H. D., and *A. B.* have been received, and will be attended to.

The communications of *Dr. Collyer* and *Mr. Tennant* have been received, and will appear in our next.

ERRATA.

Page 169, 2nd column, line 42, for *hair* read *brain*. Bottom of same column, for *Peste* read *Teste*. Page 186, 1st column, line 1, for *horny* read *brainy*.

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A COMPLETE SYSTEM OF PHRENOLOGY.

EVENTUALITY—(*Continued*).

WHEN his wife's by, he follows like a note of admiration. See them together—one's a mast, the other all hulk; she's a dome, and he's built like a glass-house. When they part, you wonder to see the steeple separate from the chancel; and were they to embrace, he must hang round her neck like a skein of thread on a lace-maker's bolster. To sing her praise, you should choose a rondeau, and to celebrate him, you must write all alexandrines."

In Curran, Walter Scott, Captain Marryatt, this organ is large, it is small in Sterne.

Animals possess this faculty. Dr. Gall maintained that their docility, and the power of training or educating dogs, was in proportion to the development of this faculty.

LOCALITY.

This organ, No. 27, is situated in the inferior portion of the anterior lobe of the brain. On each side of the centre, the two organs nearly touch above Individuality, and extend themselves laterally, between Eventuality and Time, somewhat in appearance like two horns. The frontal sinus is often over these organs, and much careful observation is necessary to distinguish between the development of the organ and the sinus. Dr. Gall describes the primitive function of this faculty to be, to examine, and recognise places and relative situations; and attributes the instinct of animals, which find their way from distant places, to the activity of this faculty. We find its application in the love of travelling, and it is large in those individuals fond of a rambling life. It was remarkably developed in Mungo Park, who relinquished his profession to gratify his love of travelling. It was very large in the head of Columbus, Captain Cook, Galileo, Kepler, and Newton. It has almost the appearance of a deformity in Mr. Dunn, a celebrated surveyor of mines in the North of England. Wilson, the celebrated blind traveller, of Belfast, had a very large development of this organ, his knowledge of places was so accurate that he was frequently employed as a guide, and was esteemed a most trustworthy messenger on whom the utmost reliance could be placed. It is large in most boys who choose the sea for a profession. In proof of the existence of this organ in the lower animals, Dr. Gall mentions an instance of a dog, which was taken in a coach from Vienna to St. Petersburgh, and returned at the end of six months; but it is useless to repeat instances so well known of dogs, pigeons, and other animals, manifesting this faculty; some cats have likewise been known to return home from great distances. The organ is small in Italian greyhounds, and they are continually being lost. The migration of birds is by many supposed to depend upon periodical states of activity in this organ. The organ is large in celebrated chess-players, geographers, and military leaders, who are distinguished for the power of perceiving the relative districts of a country, and regulating the movements of their men correctly in accordance with it. It is large in Wellington, Bonaparte, &c. In connection with Size, Weight, &c. it is eminently useful to engineers, astronomers, architects, mechanical draughtsmen, &c, The organ is considered as

established, although there is considerable difference of opinion among phrenologists as to its exact function and the sphere of its activity.

TIME.

The organ of Time, No. 31, is situated on each side of Eventuality; sometimes the organ of locality extends between these two organs. When large it gives a fullness to the middle region of the forehead above the centre of the eyebrow; it perceives duration, or the chronological relation of circumstances or events to each other; it is one of the elements of music, and its activity is one source of the pleasure afforded by dancing, from its taking cognizance of measured cadences; the rhythm of speech and poetry depends also on this faculty. It is manifested in a very marked manner in some cases, when the individuals are deaf and dumb; they may be taught to dance correctly by observing the motions of others who beat or mark the time, exactly as soldiers keep time in their movements by observing the action and motions of their commanders. Some of the metaphysicians have asserted that we measure time by the number of ideas which pass through the mind, but this view is evidently incorrect, as the more the mind is engaged the less are we sensible of the lapse of time: this enables us to account for the apparent great duration of time when we are unoccupied. Some persons endowed with this faculty in a high degree, can measure time accurately under all circumstances, and can tell the time even when waking in the middle of the night. It aids all astronomical calculations, as the time occupied in transition affords a means of calculating the distance travelled when the velocity is known. This organ is more or less engaged in all observations connected with the study of the exact sciences, but it is in connection with music that its relations are generally considered. Some who are distinguished for the possession of much musical talent, are, in spite of all study and application, bad timists; while others instinctively, without any effort, count time correctly. It is large in all celebrated musical performers, dancers, and pantomimists. Vimont believes this organ to exist in animals, and notices the fact that birds and domestic animals that have been fed at accustomed times, or taken out for sport or exercise, notice any omission, and even prepare themselve for the accustomed occupation. These facts are very interesting, and the observation of the cerebral physiology of animals must lead to a correct knowledge of natural history, and will serve to elucidate and prove much that has hitherto appeared mysterious, and which has been attempted to be explained by attributing it to the instinct of the animal. But as knowledge advances these generalities will not suffice for the explanation of phenomena. We must patiently continue our researches in the hope of being able to prove upon what particular conditions of the organization, the different habits, dispositions, and capacities of species and individuals depend.

TONE.

This organ, generally denominated Tune, and marked No, 32, on the acknowledged busts. Although well established, is difficult to observe, and the one of all the other organs, between which and the known manifestations there often appears the greatest discrepancy. This may in some way be accounted for by the fact that most persons consider music to depend on this faculty, when it is only one of the elements of music, distinguishing the relation which exists between sounds, or pitch, or in other words, merely taking cognizance of the gamut. Time, as we have seen, perceives duration, it is from other powers in combination, which results those other equally essential principles to the musician, quantity and quality. Harmony too is distinct from melody, many suppose there is a distinct organ for harmony. The whole of the perceptive faculties with Imitation, Ideality, and a good temperament, well exercised, will frequently produce a fine musical performer with only a moderate development of the individual organ of Tone. Like Ideality in poets, combining with the feelings to produce the various kinds of poetry, the musical powers will be determined by other portions of the organization either to compose or excel in sacred, warlike, or gentle music.

The organ is situated in the middle region of the forehead external to time at the angle of the forehead; a line drawn from the external angle of the eye perpendicularly upwards to the middle of the forehead, will, in most cases, rest upon the organ of Tone. There is no organ better supported by facts. If we look at the portraits of any of the celebrated old music-masters we observe an extraordinary fullness in this part, a general width and height, which tends to give a squareness to the lateral regions of the forehead. Dr. Vimont has distinctly shown the difference between the organization of this portion of the brain in birds that sing and those which do not. The best way to learn to distinguish this organ, is to attend a few meetings, such as operas or oratorios. Where many are assembled solely for the gratification of their musical faculties. The peculiar appearance given by a large organ of Tune will be apparent and will be easily recognised when seen again by those who have a fair proportion of the organs of Form, Size, &c.

There are several well attested cases in which individuals are completely idiotic, with regard to this faculty, not being able to distinguish between different sounds, as others are incapable of distinguishing colors. On the other hand, some who are idiotic on most other points, have displayed considerable musical ability. This organ has been observed in a state of disease, and the seat of the pain has been pointed out by the patient exactly in the position indicated by Phrenology. It is larger than any other organ in the same region, and this in some way, accounts for the fact, that, music partakes more of a passion or feeling than any other intellectual pursuit.

(*To be continued.*)

ON THE FUNCTION OF THE ORGAN OF LANGUAGE.

To the Editor of the People's Phrenological Journal.

SIR,—I can assure you that so far from being displeased that my views on the subject of the organ of Language are undergoing discussion, I am highly gratified at the circumstance, for I firmly believe in the old Roman adage: "*Magna est veritas et prevalebit.*" If you had pointed out a false position which I had adopted, I should have been the first to acknowledge my error and have retreated within the limits indicated in your observations. But so far from your having done so, the care and pains you have bestowed on the subject, only convince me that my position is not only tenable, but founded deeply in nature, and the reasoning you have directed against it, confirms me in its truth, and forms a most striking illustration in its favour.

I must not omit to remind you that you have deserted your favourite triangle, sphere, castle, landscape, and human being, and altogether abandoned other positions which you at first thought invulnerable. Their strength must have suddenly declined in your own estimation, for you do not now even notice their existence—In their stead I find you substitute a pig and a flower-girl, behind which you imagine you have found a safe retreat; but you will discover upon examining your position that you are rather in a worse situation than before, which confirms me in an ancient dogma, that no position whatever is very tenable in a bad cause, and that no reasoning however acute, will long serve the purpose of supporting error. Such being our present relation, let us proceed with the examination of the "other consequences" of my doctrine, which you also regard as a little startling.

But, as much of your argument will be answered by the simple statement and illustration of my views, it may shorten the matter for us both to adopt this method, in preference to answering your reasoning in detail. My position is, therefore, that the organ of Language takes cognizance of the relation of sign, between our perceptions, emotions, and reflections, and their external manifestation. Let us take as an example, the instance of the faculties of simple perception. I select these in preference to any other, as being the simplest, and affording the first manifestation of the organ of Language. The organ of Form, takes cognizance simply of outline. I observe, for example, that the outline of a bust, arises in the mind. This perception of outline is an inward perception of the mind. The organ of Colour takes cognizance of colours. Size, of space, and so on. These are all inward perceptions of the mind, and of themselves give us no information that there are causes existent without, and beyond us, which occasion these perceptions. With these faculties originate the respective perceptions referred to, but these are only so many internal perceptions of the mind itself, simple and elementary, in their character, and of themselves, originating no conception or relation beyond the simple impressions which have arisen in the mind. These faculties, of themselves, give or suggest to us no idea, that there exist external causes which excite these faculties to action, and produce the resulting impressions. All with which they have to do are the various simple impresions themselves, arising they know not how. But whence then comes the impression of the externality of these impressions? This is the first class of perceptions belonging to the organ of Language. This faculty takes cognizance of the relation that these impressions originate somewhere out of the brain. That they arise from causes beyond us, and consequently it suggests to us that the vast mass of simple perceptions are but the signs of a material world, which exists around us, and of which we ourselves are a part. Let us consider for a moment the influence of this faculty upon our mental constitution and we will find that with it originates all the power which I have attributed to it. Simple though this faculty appears when regarded merely in this isolated aspect, it acquires important relations when it comes to act in union with the higher faculties of the mind, and it becomes so blended and interwoven with these that I am not at all astonished that you have mistaken its operations for some of the higher faculties of the intellect themselves.

Without this faculty of Language then we could have no idea of a material world, and consequently would be quite incapable of acting upon it. With all the other faculties of propensity, sentiment and intellect united we would virtually be incapable of making the slightest manifestation of any kind. How, indeed, could we make any manifestation without a distinct belief in the existence of a material world around us? They very idea of doing so is ridiculous in the extreme. We would only have existing a mass of perceptions without relation to any thing beyond them, and these would be quite incapable of exciting the various propensities and sentiments of our nature. We might compare or perceive the relation of cause and effect, among these internal perceptions, but this would not make us acquainted with the external. We would thus only form a little world of perceptions and relations within ourselves and you cannot surely imagine that these internal perceptions and relations could have the effect of exciting our propensities or sentiments. The latter, indeed, could not be excited without the idea of the externality of our perceptions; for the same principle which originates our ideas of the external, recognizes the external signs of our propensities and sentiments. If the organ of Language takes cognizance of the relation between the internal and the external, or to take the example given between our perceptions and the external world, when the organ is large, persons so endowed will have a vivid and distinct idea that their perceptions are occasioned by something external to them, and beyond them, and with this deeply fixed impression, they will necessarily be susceptible of manifesting their feelings, and thoughts of every kind, outwardly with

greater facility and distinctness, than persons slenderly endowed with the faculty. This position follows rather as a corollary from the function I have just attributed to the organ of Language than from its possessing any separate or double function. For the same reason when the organ of Language is small, although the perceptive faculties may be well developed, the individual so organized is deficient in the power of external manifestation; not because he is wanting in any of the faculties of propensity, sentiment, or intellect, but because he is deficient in the faculty that impresses him with the idea of the existence of a material world, and which, consequently, unfits him for throwing outwards upon it the impressions arising from his physical, moral, and intellectual nature.

Taking this simple analytical view of the function of the organ of Language, it becomes a very easy matter to answer all the additional objections which you have now advanced. It is out of the question to suppose that I atttribute to the organ of Language the function of creating signs. The first signs which we perceive, are the perceptions taken cognizance of by the perceptive faculties; and the organ in question simply suggests, that these are occasioned by something external, of which the internal perceptions are the representation. What excites the organ of Language or Sign here, are the impressions made upon the perceptive faculties. Before the operation of the latter, the former of course perceives nothing; but after it, the organ of Language takes cognizance of the relation of their being the sign of something external. Thus we acquire our first lesson, as it were, of the relation between the internal and external; and after this has been attained, it is sufficiently easy, as I have shewn, to account for the diversified manifestations of the various faculties with which we are endowed, being partly dependent upon the strength of this class of simple perceptions. Thus we see, although the organ of Language does not create signs, yet the force and character of its perceptions have necessarily the effect of modifying the manifestations of every faculty of the mind, and of producing the same effects as if it had been endowed with a double function. In fact, in the sense I have indicated, it is virtually endowed with a double function. It is needless, therefore, to pursue further the long argument you have raised on the subject of double function; for the function I attribute to the organ is not double, but only a necessary consequence arising out of the simple function which the organ possesses. Without this function, indeed, how could we recognise or act upon what we term the external, at all? You next say, that I institute a comparison betwixt the function I have attributed to the organ of Language, and those of Time, Place, Causality, and Comparison, in this respect. If you turn again to my remarks, you will find I do no such thing—that I merely adduce the functions of these latter organs to illustrate the universality of their operation, and to shew that the function I attribute to the organ of Language, is only co-extensive in its operations with these. I cannot well comprehend what you intend to convey, when you say that these organs do not create their respective perceptions, but merely perceive them. The perception of them is a creation to the human mind, which, but for these faculties, could not have existed. The relations originate in these faculties, and could not otherwise have had being in the mind. I cannot see what you are puzzling yourself about. The same law obtains with respect to the function which I have attributed to the organ of Language. It originates in the simple manner I have endeavoured to point out the class of relations of which it takes cognizance. Its excitant exists, as I have shewn, before the organ is called into action, and its first step is to discover the externality of that very excitant. But for its having accomplished this, there could have been no external manifestation of any kind, for we could have had no idea of the external.

You say that I mention, that the organ of Language perceives the relation between the feelings of others, and the external acts which manifest those feelings: but in my statement it is not implied that there are not various other faculties of the mind engaged in this case besides the organ of Language. The organ of Language forms, certainly, the basis upon which our knowledge of the feelings of others is founded, but it is not the only organ engaged in the operation, and it is incorrect, therefore, to attribute to me the idea of my organ of Language, for example, originating a smile in a third party. All that was obviously meant was, that but for the organ of Language taking cognizance of the relation of Sign in ourselves, we could not recognize the existence of this relation in those around us. When we recognise the operation of the organ of Language in others, it is obvious that there is a process of rapid comparison, that goes on in the mind between the feelings possessed by ourselves and their outward manifestation, and the simple outward manifestation of the same feelings in others. It is, of course, from the resemblance of the manifestations, that the existence of the feelings in others is inferred. It is impossible to be more precise in a brief statement of a metaphysical enquiry; and the statement is sufficiently correct and philosophical when taken in connection with the analysis I submitted to you.

You next remark, that the function assigned by me to the organ of Language, merely enables us to perceive the relation between the internal and external; and you therefore ask me why I term it natural language. I have not been puzzling myself about a name, but have been endeavouring to resolve this faculty into its elementary function. If I have succeeded in accomplishing this, my task is done without farther troubling myself about a name. Besides, I only adopted the name which had been previously given to the organ, and appended to it the term natural. The name, moreover, is not inappropriate when you reflect that, but for this faculty, we could

have no manifestation of natural expression whatever. Indeed, we could have no knowledge of the existence of a material world; and when we consider that it imparts this, and thus gives origin to artificial language, the term used to indicate its function is probably better than any other that could be selected.

After what I have stated, it would be useless to follow you through all you have said on the subject of natural language being entirely instinctive. You might have remarked, with as much point, that every element of feeling and intellectual perception is instinctive. You say, "for instance, a person is greatly frightened; the heart palpitates, and a sudden palor overspreads the features. Here are two manifestations of natural language. They are clearly instantaneous and involuntary." But I would simply ask you, could these manifestations ever have existed, had the mind not previously recognised the existence of a material world beyond us, by means of the faculty in question? This simple position, which I stated with sufficient distinctness in my former observations, you have altogether overlooked, and it was probably convenient for your argument to do so; but you are aware that this is the point upon which my whole reasoning turns, and you probably thought it as well to avoid it, as it seemed no way favourable to the support of your objections. You next strangely take the instance of a man born blind, and say that he has no notion at all of the change of complexion produced by fear. He does not, of course, perceive the change of colour, for lack of the sense of sight to do so, but he recognises a thrilling feeling pervading his nervous system, which he perceives to be the sign of some class of emotions which have just arisen in his mind. But before this he had recognised the existence of a material world beyond him, through the medium of the senses of Touch, Taste, Hearing, and Smelling, by means of the organ of Language, and in the ratio that his perception of this was distinct, in a similar ratio would the facility of manifestation be. You next remark, that "During life, perception is the inevitable consequence of the action of the mental organs." Have we not, during life, the constant perception of the externality of the material world, without which we could not operate upon it in any way whatever? Whence is it, therefore, that you are constantly harping upon this point of the subject? Without our ideas of an external world, derived from the faculty of Language, we could have no external manifestation, for the simple reason that we could have no notion of the existence of the external.

You further remark that "in all the range of animals in which comparisons can be made, that the vividness of the natural language is exactly proportionate to the vividness of the feelings." This is far from the case. Are the manifestations of the elephant equal to the power internally possessed by it? No one who is acquainted with the natural history of this animal could make the assertion. It is extremely dull, slow, and unwieldly in all its manifestations, corresponding strikingly with its small sunken eye. Next, it is really out of the question to talk of a new born infant manifesting all the feelings it possesses, in as complete perfection as the greatest genius among men can display. The difficulty of detecting the diseases of children by their external manifestations is quite proverbial among medical practitioners, evincing the slender degree of power possessed by children in that respect. The pig is a good illustration of the extreme deficiency of the organ of Language. Its expression is little diversified, being nothing beyond a grunt or squeak, but still you will have it, that it "manifests its prominent feelings as perfectly as a parrot, a monkey, or a man, can manifest theirs. This is really too much, but it may safely be left for your reconsideration. You further notice that the flower girls of London, have small eyes, and very depressed, and yet they can manifest their feelings as well as the brightest and most "Juno-eyed of the dames at whose carriage doors they offer their flowers." Many of the flower girls of London have as prominent eyes as the Juno-eyed dames; but sunken eyes do not appear, so far as I have observed, a peculiar characteristic of this class of society. They just appear to be organized similarly to other girls of their station, and when possessed of prominent eyes they will of course manifest the distinguishing mental operation belonging to this portion of the brain.

The last argument you adduce is, you think, more conclusive than the rest. It is, "Every organ is capable of a vast gradation in action from the most gentle to the most violent." But you infer it is not so with the faculty attributed to Language. This is certainly a notable discovery by which you are to level my doctrine to an absurdity. But in the first place it is not true: the faculties which perceive or originate our knowledge of relations are not susceptible of a vast gradation of action. They may observe relations among a vast number of phenomena, and phenomena too of different kinds, but however much these phenomena may differ in their nature, the character of their relations are precisely the same. There is no gradation about the relation of resemblance, or cause and affect. These relations are of a fixed and invariable character, and precisely similar in this respect to the relation between the internal and external. I can understand you when you talk of gradations of emotion or desire, or different degrees of emotion arising in the mind of the same individual, but I cannot understand how there can exist different degrees of relation in one and the same mind. If you mean that when two emotions are very vivid, that the comparison of them becomes an easier process, and the impression made upon the mind is deeper and more lasting, you are quite right in your position, but still the relation of resemblance is the same. We are only enabled to see more points of resemblance, in consequence of the vividness of the emotions. The relation of resemblance is here not extended

in its operations, but only the emotions compared, are more vivid in their character. If you mean that individuals differ in the capacity evinced by them in the perception of relations, I can see no reason to dispute this old established doctrine of Phrenology; that with large Causality and Comparison they manifest greater power in these respects, than others possessed of the organs only in a moderate degree. The same obtains, as I have shown, with the organ of Language, for when the organ is large there is greater power of manifestation. But you limit the illustration of this point chiefly to the propensities and sentiments, with respect to which your rule seems to be correct, but when it is extended to the higher powers of intellect, it does not and cannot hold good. I think this view of the matter completely answers the argument which you deemed so conclusive.

You admit the existence of the element of mind, which I refer to the organ of Language, but then you say "it is a connection of mechanism, causation, artistic sequence, and nothing else." This is certainly discovering a home for this simple element with a vengeance. You find for it, all in one breath, no less than three homes, but I am afraid that in none of them can it long have a resting-place, even in your own imagination. I have shown you in the earlier part of these observations, that our perceptive faculties of themselves can give us no idea of the externality of our perceptions or of their being occasioned by an external cause, for all that we know or can know by means of these faculties is a simple series of internal impressions. The relation of sequence among them, or the more generalised relation of causation, may account for these relations subsisting among these simple perceptions, as among a series of internal conceptions, but their internal existence even when combined with the relations, affords us no clue to the idea which we possess, of their externality. Here then your two classes of relations, have an existence, independent of the faculty I am contending for, but these can give us no idea of the outward or what lies beyond us. We have nothing in the first instance but a series of simple perceptions, upon which these faculties can operate, and there is no sequence in one simple perception, much less is there the slightest idea of causation. It is highly unphilosophical, therefore, in a random off-hand manner to refer an element of mind to two different causes, to neither of which it stands in any relation whatever. In fact, your reference of it to different causes, at once evinces that you had not fully considered the subject; otherwise it could only have been referred by you to one class of relations. Let us see then in what manner I account for the same phenomena, according to my theory. The organ of Form, for example, takes cognizance of outline, but the first occasion on which it is excited it is conscious merely of an impression of Form and outline. This consciousness of impression is merely internal; but the faculty called Language discovers that this impression originated out of the brain or mind, in fact, suggests to us the existence of the external, of which, but for this faculty, we could have had no consciousness whatever. Here then we have a simple element of mind, which accounts for our ideas of the externality of our perceptions, without which every impression made upon the mind must have been regarded by us as internal. Having no idea of the external, therefore, whence could have arisen our capacity for external manifestation. In the ratio that we possess this faculty which connects the internal with the external, large, therefore, in a similar ratio will we possess and unfold outward expression or manifestation of what lies inward. The very recognition, in a vivid and distinct degree, that the first perception which falls upon a perceptive organ belongs to the external, affords sufficient evidence of the existence of a faculty distinct from the organ of simple perception, and of the origin of our idea of outward expression or manifestation.

When we have thus obtained the simple element of mind which originated our knowledge of the external world, it is a comparatively easy matter to trace the influence it exerts over the other faculties, in their varied and diversified operations. When this principle is deficient, it is sufficiently clear to what extent it must influence the manifestations of the whole of the faculties of the mind. The impression of a material world lying outward and beyond us being very imperfectly existent in the mind, must necessarily unfit the impressions made upon the senses from having the full effect upon the feelings, which they would otherwise have had; and hence those manifestations cannot follow which might have been expected, had the faculty in question been more largely developed. Hence it is that persons with small, or deficient Language, are generally sluggish, and not easily affected by external causes; and hence, too, it is, that persons largely endowed with the organ, possess a facility of outward manifestation not evinced by persons much apparently their superiors in moral and intellectual nature. I am intimately acquainted with numerous individuals deficient in this organ of Language, who possess brains so largely developed in the physical, moral, and intellectual regions, that but for this apparently slender defect, they must have occupied distinguished positions in the world; but with it they have a difficulty in keeping their positions, while individuals infinitely their inferiors, far outstrip them in the showy manifestation of their faculties. I am speaking of the common walks of life; and if you look around you, and examine cases for yourself, you will no doubt make similar observations. It will not do to turn round upon me, and refer such cases to the individuals possessing peculiarly happy or unhappy temperaments, and make use of some hodge-podge set of names, to which neither you nor any body else attaches any definite signification. I refer the phenomena to a simple elementary principle of the mind, which I have shewn you will account metaphysically for the

manifestations; and he must be a dogged philosopher indeed who will not first honestly go about the examination of these, before he resign his faith to a string of words about temperament, which have no distinct meaning whatever.

I need not remind you that I have already referred you to facts without number in support of my opinions. That the function I attribute to the organ called Language, is not merely limited to natural expression, but extends to manifestation in the form of action arising from our propensities, sentiments, and intellectual nature. That without this faculty we would be incapable of throwing these powers outwards, as it were, in the form of action and conduct, or of recognising the actions or conduct of those around us. I have referred you for proof to the heads of all the great masters in painting, sculpture, and engraving, both of ancient and modern times. I have further pointed out to you that actors, both tragic and comic, possess the organ large, and that all great singers and composers are equally distinguished for it. I have even referred you to a collection of heads of first-class performers, amounting to upwards of two hundred in number, and you turn round, and by way of reply refer me seriously to the head of a pig, and a few imaginary flower girls. I would just ask you plainly if this be very reasonable? I would further ask you, which of the phrenological organs that you can point to, has a tithe of the evidence I have submitted, in support of its function?

You say in conclusion, that you have a "host of other arguments, objections, and replies," which you could bring forward did your limits permit; but I presume those which you have adduced are the most formidable you had on hand, and if they are so, it will be no difficult matter to reply to those which you have in reserve. I do not mean to say that many of your arguments are not characterised by much ingenuity, but truth is stronger than argument, and requires the latter but slenderly for its support.

There is just one other point of view in which to regard this question. Does the function which I have attributed to the organ called Language, not account for more phenomena than the old one? Is it not more simple and comprehensive in its operations, presenting an obvious and intelligible range of function, which he who runs may read? You yourself have apparently abandoned the old theory, for you do not even whisper a syllable in its defence. The organ of Language, then, if not possessed of the function which I have attributed to it, is at present, at least, without any known function whatever. I have assigned to it a function embracing all the old facts referable to it, together with a mighty host of new ones—thus explaining a larger class of phenomena than had been attempted by the old theory, if theory it may be called. Whether you regard, therefore, the view I have taken of this important inquiry simply in its metaphysical aspect, or look at it in connection with the facts and illustrations by which it is supported, every candid and dispassionate thinker must come to the conclusion, that it is not to be cast aside as unworthy of consideration, for there exists in its favour a mass of evidence greater and more distinct than goes to the establishment of any other of the Phrenological organs.

I have to thank you for the pains you have bestowed upon the reconsideration of the subject, and I trust, upon again reviewing your opinion, you will find that the views which I have thus submitted, with the large body of evidence in their favour, are more in harmony with nature than you could have anticipated from a hasty, and probably imperfect glance at them.

I am, Sir,
Your's faithfully,
PHINEAS DESERET.

London, 24 *Calthorpe Street*,
Feb. 5th, 1844.

THE

PEOPLE'S PHRENOLOGICAL JOURNAL.

WE are glad to hear from Mr. Atkinson on the subject of his discoveries, though we must confess ourselves very much surprised at the nature of his communication. We criticised his views because we deemed them erroneous, and calculated to swell the torrent of error which some modern mesmerists have poured out upon phrenology, and we criticised them the more willingly, because we considered him better able to defend himself than many others whose opinions we looked upon as even more objectionable than his. We cannot perceive upon what correct principles this course can be objected to. He who comes before the world with novel views has no right to be surprised that those views should be criticised. The same love of truth which inspires him to proclaim them, will induce others to denounce them, if they deem them erroneous. For a discoverer to think of prescribing rules to his critics, telling them what they may examine, and how they must examine it, and what they must let alone till further evidence be brought to bear upon it, evinces more enthusiasm than wisdom. The moment the press has uttered his thoughts, they are no longer his. They are the common property of all, and every man has a perfect right to examine them to the best of his power, and in the manner which he considers best. Unless their author be prepared to defend them at all points, he must arm himself with patience and abide the storm. Mr. Atkinson objects to entering into argument upon his views until the facts upon which they are founded be further tested and confirmed by others. That may be a very convenient plan

for Mr. Atkinson, but it may be decidedly the reverse for others. It secures him from the trouble of meeting awkward objections, and gives him a chance of converting to his opinion all who are liable to be satisfied by such evidence as he has to offer. He can thus surround himself with a body of supporters and disciples, who will unite in proclaiming the wonderful beauty and utility of his discoveries, while all who think differently from him must fold their arms, and year after year, listen with silent patience to these joyous anthems, until at last it shall please him to announce the time when "reasoning" may begin. A mighty convenient plan this, certainly! But suppose that those opposed to him should consider his views not merely as erroneous, but, under existing circumstances, likely to be mischievous, as countenancing a multitude of analogous errors, and deluding by a certain speciousness, a number of persons; can they be blamed for seeking to prevent this mischief? Is it not in fact a matter of duty to do so? And suppose their objections lie not against the facts but the deductions made from them, where would be the use of waiting for a further accumulation of them? The question would remain the same after ten millions of such facts had been collected, by ten thousand different observers, as at the time of Mr. Atkinson's first announcement. Mr. Atkinson labours under a most complete delusion if he imagines that we have opposed our reasonings to facts. We have done nothing of the kind. We have declared in the most explicit terms that we have objected to his *inferences* only, that we fully admitted his facts, not merely hypothetically, but that we actually *believed* them. Can anything be more plain than the following passage in the last of our articles on this subject?

"Are these opinions of Mr. Atkinson *facts*, or are they *reasonings?* We rather fancy the latter. The facts are the words and actions of the somnambulists alluded to. These we do not dispute. We believe words to have been uttered, and acts performed, of the nature stated—by the parties spoken of—under the circumstances mentioned; we merely object to the interpretation given of them, to the inferences drawn from them, in a word, to Mr. Atkinson's *reasonings* about them. He fancies he is relying upon facts, when he is merely relying on his own reasonings. We shall be told, probably, that we may argue as we please, but that these are the facts, and that they cannot be disproved. Who wishes to disprove them, or dispute them either? We are not at issue with any of the phreno-mesmerists upon points of fact, but upon points of reason. &c."

Such is the manner in which we have spoken; such the spirit in which we have criticised Mr. Atkinson's opinions; and now we must remind him, in other terms, that, in all sciences, there are two ranges of truths, one of which may be arrived at by direct observation and experiment, as coming within the sphere of the external senses, while the other can be reached by *inference* only, by reasoning upon those facts which these senses enable us to perceive directly. We must remind him too that of this latter kind are *all* the phrenological doctrines respecting the existence and functions of the cerebral organs. Of this kind indeed is the whole science of physiology. We perceive certain actions and other manifestations of mind, we perceive certain shapes of head co-existing with these, and we then *infer* that there are distinct organs in the brain each of which is specially concerned with some one element in these external manifestations. To talk of these inferences as matters of fact, which must be received upon the evidence of our senses, and against which it is folly to reason, is to confound language and thought, and to utter sheer nonsense. These inferences are obtained by *reasoning*, by processes of *argument* more or less elaborate, more or less accurate, and it is by reasoning only that their truth is to be judged of. As the truth inferred cannot in the nature of things be reached by direct perception, it must be reached by reasoning. Did a person, upon the faith of his reasonings, set himself to deny the reality of what, if true, might be made a subject of direct observation and experiment, his conduct might possibly be very unreasonable, but we are not placed in any such predicament. We admit everything that can be reached by direct perception or experiment, and object only to that which *must* be obtained by *reasoning*. We oppose our reasons to Mr. Atkinson's reasons, not to Mr. Atkinson's facts. We admit, for instance, that when Mr. Atkinson touches a particular part of the cerebellum, in a mesmerised subject, that subject feels pain, but we object to his assertion that there is at that locality a particular organ whose function is to manifest that kind of pain. How is Mr. Atkinson to convince us that there is such an organ? He cannot appeal to the testimony of our senses, because our senses give us no information on the matter; he must then have recourse to argument, he must give some reason for his opinion. Perhaps he

may say, why the case is self-evident. As often as I touch that part, there is pain, when I touch any other part, there is some other manifestation. Very well, we answer, this may be satisfactory to your mind, but it is not to ours, we do not see this necessity : were it self-evident we could not avoid seeing it. Were it self-evident there would be no room for any other supposition, which there is. For example, it may be maintained that this part of the cerebellum is merely in connection with the organ of pain, the organ itself being situated somewhere at the base of the cerebrum; it may be said that the first excitement of the pain depended upon a concurrence of circumstances, and that in the subsequent experiments the thoughts of the operator affected the mind of the patient and produced a result which might have followed from the touch of any other part of the head, had the operator chanced to imagine it the seat of this opposed organ, &c. &c. Or the opinion may be supposed by a *reductio ad absurdum*. If there must be an organ, of pain in this part of the cerebellum, *because* pain follows its mesmeric touch, there must be organs of flying, swimming, climbing, rowing, &c. &c. in the forehead, and a variety of other absurd organs in various other parts of the head, for by the same means, corresponding manifestations have been produced as often, as regularly, as perfectly, and by as many different persons as the one we speak of. Nay there must be mental organs in the face, in the elbows, in the knees, in the fingers, and in various other parts of the body. It is clear then that the matter is not self evident. If not, the opinion requires to be supported by argument. Either Mr. Atkinson's mind has gone through a process of reasoning before arriving at this conclusion, or he has rashly and unwarrantably *assumed* it. What then is the meaning of all this clamour about facts? This horror of reasoning? This lecture, which has been read to us on the impropriety of neglecting induction and observation, and trusting to our own fallible reason, and waging war with novelties, &c. &c. Really we did expect something far better from Mr. Atkinson. We did not anticipate this confounding of facts with inferences. We did not imagine that a phrenologist of any talent would think of shrinking from argument, in a case where nothing is possible *but* argument or *assumption*. Where if truth is to be attained at all, it must be attained by careful reasoning upon a great variety of facts, or by chance. We did not expect him to chime in with this modern cant about facts, and the inductive philosophy, and the dangers of reasoning, &c., a cant which is seldom anything better than a refuge for assumption, or impotence. The dangers of reasoning indeed! As if the greater part of all the sciences, and the whole of some, were anything else but pure reasoning! As if the father of the inductive philosophy were not the greatest reasoner of modern days! God forbid that we should fall into the insanity of talking against facts, or induction. But there is an opposite folly which it is quite as necessary to guard against. We repeat then: he who opposes *facts*, by mere argument, acts most unwisely, to say the best; but he who objects to have opinions, inferences, theories opposed by argument, acts most inconsistently. What shall we say of objecting to argument, where, assumption excepted, nothing but argument is possible. Finally, we maintain, that it is always legitimate to test opinions by their consequences. This method is most natural; it is more or less adopted by all men, to the extent of their powers; it is not merely sanctioned, but perpetually practised in the most exact of all the sciences. Let those who feel incapable or unwilling to employ this method in questions of difficulty, follow one that they find more easy or agreeable, but they have no right to impose conditions on those who choose to have recourse to it. This method may be abused by the rash or the incompetent, just as puerilities and absurdities may be propounded in the name of inductive philosophy; but the fault is not in the method but in the individual.

Mr. Atkinson has quite mistaken us, if he fancies that we wish to force him into an unwilling controversy, or that we call for explanations which he wishes to withhold. We should be sorry to do anything of the kind. All this is his own affair. But since his views have been laid before the public, we conceived we had a perfect right to express our opinion in regard to them, and it was our opinion that views of such a nature, and so announced, ought to have been more clearly explained, and more fully supported. We certainly did imagine that Mr. Atkinson earnestly wished that these opinions should be fully enquired into; we supposed that he considered himself prepared to defend them at all points; and it hardly occurred to us that a person in his position, and anxious for the truth, would avoid a discussion conducted with the sincerest desire of arriving at truth. However,

as Mr. Atkinson has now explicity stated his wishes on the subject, we can have no desire of interfering with his determinations. Neither do we question the propriety of such determinations in this individual case, as he may have very sufficient reasons for them. At the same time, we must say that the course he has adopted is not the usual one, nor one which, in the generality of cases would be apt to be much tolerated. We must observe too that he has no right to be either surprised or displeased, if he finds others using their own discretion as to the time and mode of enquiring into the truth of such of his opinions as have been submitted to the public.

As to the point in which we have misunderstood Mr. Atkinson, we have to express our regret. But we really think that the fault lies rather with him than with us. We examined the passage in question repeatedly and carefully, and found it necessary to complain of its general obscurity, in comparison with the rest of the paper. It is certainly not a little singular that the most important part of the whole paper should be the most brief, and the most obscure; that those opinions for the announcement of which the paper seems expressly written, should be stated in one short paragraph, without elucidation, without argument, and with the utmost possible brevity. The passage may be very clear to Mr. Atkinson, who previously knew what was to be expressed, but his readers are the only proper judges of whether it is so or not. As to the alterations which Mr. Atkinson made in this paragraph when republishing it in the "Zoist," we were not aware of them until we received his letter. In reading the "Zoist," for October, we merely glanced at the abstract of his paper, as we were already familiar with the original, and we therefore did not see these very material corrections. We must observe, however, that whatever Mr. Atkinson's meaning may have been, we have correctly interpreted, according to the obvious acceptation of the words, and the structure of the English language, the passage in which he speaks of the organ of a *physical sense*. He says—

"You further object to the centre portion of the cerebellum being an organ, having several distinct functions, which I have never supposed, and if you refer to the report in the "Zoist" to which I have alluded, you will perceive that I spoke distinctly of a group of organs, and point to some of their localities."

The passage on which our remarks were founded, that read before the Phrenological Association, and published in the "Medical Times," and this Journal, is as follows:—

"And in the centre we have amativeness, and a physical sense, a sense of the functional condition—the feeling of heat and cold, and pain, of health, and disease, or of the general, internal, and physical condition of the body, without reference to the muscles."

If this passage, which is all that is said upon the subject, in the paper in question, speaks of a group of organs, and not of a single one having this strange and complex function, then we do not understand the English language, and we think there must be few readers not in our predicament. To us the passage means this, and nothing else, viz.—that in a central part, between some organs previously spoken of, there is the organ of Amativeness, and also an organ of a physical sense, that is to say, of a sense of the functional condition, of the feeling of heat, and cold, and pain, health and disease, in other words, of a sense of the general internal and physical condition of the body, without reference to the muscles. How we were, out of this passage, to extract the same meaning as is conveyed in the one to which we are now referred is to us a profound mystery. Let our readers determine, the passage is as follows:—

"And in the centre *are* what may be termed the physico-functional *powers—a group of organs*, giving the sense of physical pain and pleasure; temperature; and having relation to the general condition of the body, and its secretions, amativeness, &c. The part nearest the centre giving the sense of pain; the sense of temperature being nearer to the ear, and Amativeness beneath."*

If Mr. Atkinson held the same opinions when writing these two passages, we must take the liberty of saying that the first of them is the most infelicitous attempt at expressing a meaning that we remember ever to have come across.

As Mr. Atkinson has not thought it necessary to meet any of our arguments we need not repeat them, nor add to them, on this occasion. To such of our readers as admire the new mode

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The previous part of the passage is as follows. "That portion of the cerebellum nearest the ear, gives the disposition to *muscular action;* next to which, and almost half-way between the ear and the occiput, on the top of the cerebellum, is *muscular sense*,—a power conveying the sense of resistance, and the state of the muscles; beneath which is *muscular power*,—giving force and strength; and in the centre are what may be termed the physico-functional powers—a group of organs," &c.

of philosophising that has sprung up among phrenologists, in which inferences are termed facts, and all systematic reasoning rigorously proscribed; to all, in a word, who patronise the gaining-remote-conclusions-at-a-jump system, who are anxious to see "every man his own phrenological organ inventor," Mr. Atkinson's course will seem highly judicious, and ours highly improper. Very well: let it be so. All we hope is that the system will be prosecuted with the same vigour with which it has been begun, and then, by and by, when the day of reckoning comes, the "reasoners" will be saved a great deal of trouble. These inventions may now seem to move on in tolerable harmony, but presently we shall find them arranged in irreconcileable opposition, and we may look out for a conflict that has no parallel, save the far-famed fight of the "Kilkenny cats." The results of the contest will doubtless be the same, and these glorious discoveries, like their pugnacious prototypes, will leave to an admiring posterity nothing but their "tales."

CORRESPONDENCE.

To the Editor of the People's Phrenological Journal.

Sir,—Having read Mr. Merryweather's interesting and ingenious article in your Journal, page 167, in which he refers to Dr. Keenan and the two letters of N. O. N. and my own communication, I beg to enclose the report of a lecture delivered by the doctor, which if you can find space for insertion, I hope will have the effect of fixing public attention upon a question whether the lungs or the brain be the galvanic battery, and also in some degree suggesting the course of enquiry. And in which report, it will be seen Dr. Keenan allows the realities of Mesmerism, while he dissents from Phreno-Magnetism having thrown any light on Phrenology as asserted in one of his late lectures. I may also add that the line of proof, adopted by Dr. Keenan in his last Saturday night's lecture at the Royal Polytechnic Institution, was, that the human body is as plainly got up on the principal of being propelled by the electricity generated in breathing, as a train was propelled by steam.* That in respiratory food (Hydrocarburets) and oxygen we have the supply of material from which to make the electro force. Wine, butter, &c, (Hydrocarburets) corresponding to the zinc plate.

He also showed, that all previous imputed uses (such as those of Liebig and Dumas) of respiratory food and air were fallacious, as respects the production of heat, but to generate the electro motive power.

I remain, Sir,
Yours obediently,
M. Tennant.

2, *Warwick Street, Regent Street.*
Jan. 29, 1844.

* I should much regret if Mr. Merryweather was not there, seeing there were so many scientific men with whom the theatre was crowded and who evinced their approbation of the doctor's new view by their repeated plaudits.

REPORT OF A LECTURE,

DELIVERED

IN THE BELFAST MUSEUM.

By Campbell Brown Keenan, M.D.

OF BELFAST.

From the "Banner of Ulster," July 22, 1842.

On Tuesday Evening, 19th instant, Dr. Keenan delivered a very interesting lecture, in the Museum, on the philosophy of digestion and respiration. He commenced by saying, that in all ages, mankind had been more eager in the pursuit of other knowledge than in the study of themselves—in proof of which he instanced the late period, scarcely two hundred years ago, at which the circulation of blood was discovered—and that it is only twenty years since physicians began to apply their ears to the chest, to ascertain the state of the lungs by the sounds emitted. *Why do we breathe?* is a question as simple, though equally important, as that which suggested the discovery of the circulation to Harvey, or of gravitation to Newton; and the consideration of the fact that *fifteen ounces* of the simple substance *carbon*, in our food, daily go into and pass out of our bodies by the lungs, suggested to him another simple, though very important question, viz.—*By what power do we move?*—the investigation of which, in connexion with respiration, lays open and explains a train of physico-vital phenomena, not less valuable or important than either of the two discoveries above referred to.

In the course of this investigation, Dr. Keenan affirmed, it would be seen that the main use of the lungs, viz.—to generate the moving power, has till now, been altogether unknown, and the functions of digestion, as well as of circulation, only partially understood. He did not purpose to inquire into the nature or origin of life or of the living principle, as that would be foolish. The seed before it was sown, and the egg before being hatched, both contained the principle of life; but his inquiry was concerning the moving power, that evolved the vital phenomena. To show that the breathing is a process for generating the moving power, and that this power is electrical or galvanoid, it was to be remembered—1st. That in all chemical actions electricity was evolved; 2nd. That the chemical action that took place in the lungs, by the union of the oxygen of the air with the carbon and hydrogen of the blood, was highly fitted for the extrication of electricity, which, accordingly, took place in great abundance;

and, 3rd. That the electric fluid is an adequate cause of motion, being proved to be so by the fact that thereby respiration is re-established in a drowned person after it had wholly ceased, whilst the limbs, and even the trunk, are by it put into motion after life is gone—phenomena that, to the same extent, cannot be produced by any other known agent. It was to be observed that all living and moving bodies agreed in two essential particulars—in requiring a stream of air and a supply of food, the use of the food being twofold: 1st. To sustain the formation of the body; and, 2nd. To supply the blood with carbon and hydrogen, for the purpose of generating with the oxygen of the air the moving power of the lungs, as has been already stated. Dr. K. then gave several instances to prove that exhaustion from want of food arose more from the deficiency of moving power than from loss of substance, and that, consequently, food was required to supply the former rather than the latter; that the constitution of our food was of two kinds—one consisting principally of the oxydizable materials, viz.—carbon and hydrogen, for producing with oxygen, the moving power, and might hence be called the *respiratory food;* whilst another was mainly of nitrogen and the salts, and was the *plastic material*, for composing the animal textures. "If you wish," said he, "to fatten a horse, you feed him on *bran*—a type of the latter kind; but you give him *oats*—a compound chiefly of carbon and hydrogen—to make him a good roadster." The large quantity of food required by adults also shows that it is necessary for the purposes of motion as well as nutrition, This view of the subject further explains what, on any other supposition, is quite unintelligible, viz.—the use of the great velocity of the blood's circulation. Why should the blood, if for the purpose of nutrition alone, flow at the rapid rate of 150 feet in a minute? or why should a machine, perfect in all its parts, cease its motion, and be instantly destroyed, by stopping the circulation of a *driven, not a driving* fluid, unless we suppose a purpose other than the nutrition to be fulfilled?" Dr. K. then stated that it had always been a general feeling that the liver was in some way or other an antagonist for the lungs, which he explained was truly the case, by its regulating the quantity of carbon and hydrogen sent to the lungs for the purposes of motion; and thus he would explain also the effects of intertropical climates in aggravating liver diseases, the lungs being unable in warm countries, to perform perfectly their functions, and the liver being consequently overwrought.

Dr. K. afterwards proceeded to contrast his views with those hitherto maintained, and to controvert the latter. He said that the idea of air being primarily necessary for living bodies, *in the production of heat*, was untenable, as it was quite as much required by bodies of a low degree of temperature as by those of a higher. Since all, then, require air, but not heat, it follows that the air must be for another and a universal purpose in the living economy; nor said he, in the chain of living existences can the air be primarily for the purpose of *carrying off carbon*, since those bodies which retain their carbon as imperatively require air as those that part with it; and even in the latter, carbon being a *detritus* of nutrition, whilst oxydation is antecedent thereto, the oxydizement of the carbon cannot be a corrigent of that nutrition which it precedes. The lungs, therefore, are not for the primary purposes of producing heat, and of decarbonizing the blood, *but for the purpose of generating the moving power*—upon which transcendent function the former are dependencies.

In referring to the distribution of this moving power, it must be observed that some beings, such as plants, from the monotonous uniformity of their actions, do not require, in their organization, the means of concentrating or transmitting the power rapidly from part to part; whilst others, viz., animals, whose safety at one time or another may depend on the eye, the ear, or the limbs—absolutely need such a provision, and have it in their brain and nervous system, which may be deemed the repository and transmitters of the power—the great reservoir for locomotion, however, being the spinal marrow. Thus are explained the well-known facts, that from horses, cats, and other animals of high moving power, can easily be drawn electric sparks, and that these come most readily from their backs. That the electric substance, formed and transmitted as now explained, exists in and actuates the animal economy might also be shown by the fact of diseases of low action, such as rheumatism, neuralgia, paralysis, and those of arrested secretion, being brought on by causes capable of abstracting electricity from the body, and being curable by electricity passed through it; and, further, that the natural coverings of all animals are its worst conductors. Since the experiments of Galvani, many physiologists have supposed the motor power to be a modification of the electrical fluid, an opinion supported by that no less distinguished physician than able scholar and acute reasoner in physics, Dr. Billing, of London; but has been only partially received because the process for the formation of electricity in living bodies has not been hitherto traced and applied. True, the brain has been alleged as its source: but this idea Dr. K. repudiated, as there was no known cause in the brain adequate to its formation, and because the size of the brain bears no proportion to the moving power, whilst the chemical actions in respiration and digestion do. Of this he instanced high-flying birds, in which the brain is small, whereas the air is largely diffused through their bodies, even to the tips of their feather—the property of levity being only secondary.

Dr. Keenan again referred to the distribution of the moving power, regarding which he said that, when any organ was much exerted, it appropriated to itself for the time the moving power, to the deprivation of other organs, in which there was a consequent temporary diminution of action. If, for example, he said, the eyes be strained by over-exertion, there is then an accumulation in the visual organs, from which, how-

ever, it may be abstracted by the hand of another placed near to the eyes, on the principle of electrical induction, or as a negative cloud draws a spark from a positive one. The mesmeric phenomena of sleep and inaction are thus explained—the art of mesmerising being only a dependency of this general law. It was for the bold and sagacious, though perhaps indiscrimate approval of the mysteries of his strange art, which has not yet been sufficiently investigated, that the renowned Elliotson, that most learned physiologist, was martyred in the cause of physiologist, was martyred in the cause of philosophic investigation.

The proper distribution of this moving power is also to be regarded, Doctor Keenan averred, in laying the foundation of education; and the science of *pedeutics* must ever be imperfect, whilst in the rules of education—it is neglected. *A good education consists in conferring a maximum amouut of perfection* ON EVERY PART *of the whole man—upon the intellect, the moral, and the animal*—which cannot be done if the actuating power be exhausted on the organ of thought, for instance, at the expense of the sentimental and animal parts of our nature. How often do we see a tortured and overwrought brain induce a languishing digestion and general debility, envolving scrofula in all its Protean disfigurations! Thus muscular and digestive powers are changed into cerebral, and we are now enabled to see the second fundamental law in *pedeutics*—viz., that *education does not create new power, but only converts one power into another*—which may be further proved by the example, that, when we learn by extreme labour to be good diggers, we become the worse thinkers—in this instance converting cerebral into muscular power. In order, however, that mankind may be suited to the various occupations of life, each has naturally a dominant part in his organization, with its associated intellectual, moral, or animal endowment; and to fulfil the intentions of Providence, the dominant organ should receive an equally dominant supply of moving power, but not an unfair *pre*dominance of it: for whilst the Almighty in his physical as in his moral creation, has made superior and inferior, without totally annihilating one for the supposed advantage of the other, *so, in its cultivation, we shall allow a fair and proportionate supply of the actuating power to the dominant organ, but not in such success as to draw it off, and thus impoverish the others*—for nature knows no monopolies. This, then, is the third great law in a philosophical education. Accordingly, though a man may be gifted with a strong spine and good muscle, he is not to be incessantly devoted to the "hewing of wood and drawing of water," as to abstract the actuating power entirely from his brain, and thus to weaken, if not destroy, his intellectual and moral nature.

Dr. Keenan then concluded his address, which lasted for two hours, and of which this is but an abstract report; for we never recollect having heard a more full, ingenious, and extraordinary lecture.

EXTRACT.

FOURTH ANNUAL REPORT

OF THE

CRICHTON ROYAL INSTITUTION

FOR

LUNATICS,

DUMFRIES,

ELEVENTH OF NOVEMBER, 1843.

(Concluded from page 208.)

Mr. Sinclair, of Dumfries, having most kindly offered the use of a house in the High Street, thirty of the patients were enabled to witness the entry of Van Amburgh. A few were permitted to attend his evening exhibition, but for the majority such a scene was considered too exciting. Billiards, cards, chess, summer ice, have occupied many tedious hour within doors. In the evening, exhibitions of legerdemain, ventriloquism, musical and dancing parties, visits to the theatre, concerts, and other public places, have been resorted to as rewards, encouragement, and distraction. And if the influence of discipline and supervision be carried into effect in these assemblies; if the patients are never allowed to forget that they are observed, and under probation and upon honour; and if due care be bestowed in selecting those of decorous deportment and suitable dispositions, no reasonable objection can be urged to the meeting of the sexes. Such reunions are but an extension, a new application of the principle regulating all attempts to approximate the conduct of the insane to what is sanctioned and demanded beyond the precincts of an asylum. The discipline of the unsound mind in this respect, resembles in many ways the treatment of the infirm and diseased body. Much is empirical and experimental. Principles are adopted, and means are employed, suggested by the recognised laws and supposed analogies of the sound mind, with the view to remove delusions, and to rouse or resuscitate energies which do not yet bear the stamp and recommendation of experience, and the precise operation of which cannot be gathered even from the result. In the course of the festivities of last season, an imbecile lady was induced to attend a party of convalescent patients where there was much good humour, mirth, music, and charade acting. She participated in none of these amusements, but sat apart impassive and imperturbable. On the following morning, a total transformation had taken place. She had passed suddenly from weakness to strength, from drivelling imbecility to clear, cogent intelligence, from disease to health. The restoration was perfect and permanent. Now it would be rash and sanguine to affirm that the music, which did not appear to reach her ear, was the cause of her recovery; that some song or sound of other days had reached her memory; that some hidden chord was struck; that some powerful association was excited, and, communicating its influence through a long succession of dormant but living thoughts and emotions, reconstituted and reorganised the shattered and prostrated mind; yet it would be equally unjustifiable to conclude,

that the impressions, or some of them, received upon this occasion, were not instrumental in effecting what every other resource, medical and moral, adopted during a period of two years, had failed to accomplish—in imparting an impulse and form to what was hitherto lethargic and confused. Such unexpected and decided consequences demonstrate the propriety of multiplying and varying, to as great an extent as possible, and at every stage of the malady, however advanced and hopeless, the moral agents which can be brought to act immediately upon the mind of the insane, even where the present state of our knowledge does not permit us to discriminate the precise cases in which such means are applicable, or to determine the precise mode or moment in which they should be applied.

Less exciting pleasures have been found for other members of our community. A teacher has been employed to give instruction in music to one patient, who has the enthusiasm, if not the talent of an artist. At one moment, indeed, the sounds of pianos, flutes, fiddles, and the guitar, might have been heard from different parts of the house, robbing the moral chaos of much of its gloom, and disguising, if not dispelling, the sorrows of both performers and auditors. A patient, who has passed much of his time in Germany, and who has imbibed a passionate admiration of its literature and language, is allowed to impart their beauties to a sane inmate. A lady, while recovering from partial imbecility, engaged in the same study, and became a proficient, in the very act of becoming well. As a test of clearness of intellect, mental activity, and consistency of pursuit, the translation of Grotius de Veritate, &c., was prescribed and accomplished. And even where there is no hope that the mind will be improved or strengthened, where delusion is ingrafted upon the healthy faculties, and has formed a principle of action, where the only aim is to shut out error for a time, and to render the individual sane and serene for one hour, while he is engaged in fact, the cultivation of particular tastes and tendencies is encouraged and indulged. A reverist has been tempted from his dream, and from his corner and carpet in which he was accustomed to coil himself, to refresh his knowledge of Oriental literature; and now reads and writes Hindostanee and Persee with ease and delight. His version of the tales of Sadi is far advanced. The son of Prince Charles Edward is busily engaged in crayon drawing, and in the study of French. A clergyman, who was the daily victim of poison, has consented to revise the census of the population; and another member of the same profession wrote, at a time when much depressed, a number of sermons, displaying average ability. Our literary labours have been varied and voluminous. An emulative rivalry in composition arose in the convalescent ward, which was not discouraged, and which produced poems, satires, songs, ethical essays, even sermons, one of which was delivered in the chapel by the reverend author; which were all required to pass the rubicon of the Superintendent's criticism and censorship, and which possess this, if no higher merit, of being the offerings of gratitude. Many of the verses have been published, and show how exquisite may be the sensibility, how felicitous the fancy, how sound, and clear, and coherent, may be the descriptive powers, where there is a total absence of self-control, where there is profound, permanent, anguish: where reason staggers, and refuses to obey the will, whenever it approaches the investigation of a certain class of propositions. The drama has not been forgotten; and the hope is entertained that a farce, written in the Asylum by a patient, may yet be acted in the Asylum by patients. The most curious of the works actually produced, has been a highly elaborated sketch of a constitution, for the Asylum, by a gentleman who may be considered the Abbé Sieyes of our Republic. In this theorem, the most prominent feature was, that the government should be vested in a council of patients; that every violation of decorum, every departure from reason, should be tried by a jury of the inmates; and that the medical officer should act solely as a judge, in awarding punishment when the accused was found guilty; in other words, in prescribing medicine when it was declared to be necessary. A great variety of periodicals are circulated through the establishment. These are derived from various sources. They are procured expressly for the use of the inmates; they are sent by friends to the Institution; they issue from book-clubs; or they are supplied by relatives to particular individuals. A list of the most important of these will shew, that the political leanings and literary progress of the world, are closely followed within these walls.

Athenæum, Times, Globe, Morning Chronicle, Illustrated News, Evening Post, Caledonian Mercury, Tom Burke, Martin Chuzzlewit, Chambers' Journal, the Witness, Dumfries Herald, Dumfries Courier, Blackwood, Bentley, Quarterly Review, Edinburgh Review, Phrenological Journal, Penny Magazine, Saturday Magazine, the Record, and many Provincial Papers.

Our library has received considerable additions. Some of these have been contributions by friends. That they have been fully appreciated may be learned from the fact, that there have been many hundred issues, and about fifty readers. The serial publications and more important works, are given out on the principle of itinerant libraries, and travel from gallery to gallery in succession. But so numerous are the applications for books, and so difficult is it to apportion and distribute them properly, that a plan is under consideration to provide a reading-room, which might contain bookshelves, and all the periodicals received; and to which access might be given, under sufficient guardianship, at certain hours, to such of the patients as desired and deserved, and were in a state to enjoy, the privilege. A most amiable and erudite patient has already appeared as a candidate for the office of Librarian. In the anxiety to divert the mind from itself, and from the clamorous demand for such recreation, many authors are resorted to whose principles are either not known, or are not altogther approved. Occasionally a check requires to be imposed upon the course of reading, as when a suicide perseveres in inquiring for such works as Bolingbroke, the Radcliffe novels, and Bird's novel of the Infidel's Doom. But the evils of such indiscriminate gratification, if evils there be, must be utterly insignificant when compared with the advantages. Thrice we have known delusions created and confirmed by passages read and imprinted upon the memory. In two of these instances, the source from which the poison was extracted was the Holy Scriptures. In the third, a patient found in a periodical the description of the character of George III.; he then drew a historical parallel between himself and that monarch, and proclaimed himself George V. But such acci-

dents are over-balanced by the amount of real knowledge, the habits of steady attention and consecutive reflection. the exercise of memory, the introduction of happy and wholesome views of mankind, the springs of innocent mirth, which the faculties must and do receive, even from desultory reading, and even when enfeebled or erratic.

But the most novel and interesting attempt to render amusement subservient to the objects of treatment, was the introduction of private theatricals as a means of occupation to a certain portion, and enjoyment to above one-half of the inmates. It is believed that this bold step in advance was the first of the kind made in Britain. Convalescents and monomaniacs have repeatedly attended the public theatre; but that about sixty patients should, with perfect propriety of deportment, with keen appreciation of the merits and mirth of the performance, witness the repeated representation of farces or vaudevilles by members of their own community, by those participating in their own infirmities, was certainly a noble triumph over the sorrows and intractableness of disease; a miracle if we reflect upon the past, an augury of success if we look to the future. Yet the achievement should be regarded less as a boast or proof of what may be accomplished with the most stubborn and rebellious materials; of how far the insane mind may be carried towards health; how closely it may be made to imitate the manifestations of the sound and strong, than as a means of calling forth neglected energies, of diffusing bustle and expectation, and enjoyment, where all is generally dead, and dull, and dark; of creating sources of happiness on the very limits, but not beyond the pale of surveillance, apart and distinct from the position of those concerned, and in themselves so fraught with ideas and feelings incompatible with melancholy or moroseness, and so suggestive of pleasing recollections and associations. The benefits were not, however, confined to the exhibition, nor especially to the actors, whose previous training, exercise of memory, self-possession during impersonation and success must have proved curative, but included the healthy tone which pervaded the establishment during the whole of the theatrical season. The collection and preparation of a wardrobe, the erection and decoration of the stage, the speculations as to effect, the rehearsals, the criticisms, the composition of prologues and addresses, the green-room supper, the debut and retirement of companions, all contributed to unite the different inmates in a common purpose, and to furnish matter for thought and conversation very widely removed from what generally obtain among them. In fact, the discovery of a mode by which the insane could be induced to form themselves into a society, and to proceed towards a given end in concert, constituted the most important aspect of the enterprise. By a fortunate combination of circumstances, which may never occur again, a strong taste for histrionic display, and very considerable powers of impersonation, were found to exist in several of the patients; and a company was formed, from the stage-manager to the prompter, upon the model of similar associations, and guided and governed according to established rule.

The chief inducement to these gentlemen to engage in so new, though so congenial a course, was unquestionably the anticipation of popular applause; and the extension of admission to the Directors, and to a portion of the public, not merely afforded the gratification sought, but acted as a salutary check upon the mode in which the attempt was conducted, and laid bare the nature and extent of the experiment in all its bearings. Yet, few of those who witnessed these recreations, who passed through gay and garlanded halls, who sat amidst quiet, well-dressed people, listened to music, and derived pleasure from the exposure and caricature of the follies of the time, who saw, in fact, a play fairly acted on a well appointed stage, could readily believe that the whole was, in great measure, the creation of the insane—that they sat beside them, listened to them. Or, that among the performers were men believing, or who very recently believed, themselves to be emanations from Deity; to be endowed with a double being; that they could destroy the metropolis with a single nod; who had passed from the fury of mania to the highest exercise of intellect. Much of the success of the efforts was owing to the co-operation of Mr. Wingett and other officers; but fifteen patients, either directly or indirectly, joined in the amusement, and contributed, in various degrees, to render the scenic deception complete. It is satisfactory to know, that about one-half of these have left the Institution; that one of this number is now engaged in the practice of his profession in Canada; that another has proceeded to India; a third passes the winter in Italy in the study of the Fine Arts; and that a fourth is acting piously and prudently as a clergyman in his own country.

Where the position or condition of the patients do not permit them to engage in pursuits such as those described, manual labour is enjoined. A party of gentlemen assisted to trench a portion of the grounds; and the numbers employed in agriculture and gardening, and the state of the fields, lawns, and shrubberies, show how much such an expedient is appreciated, and how far it is carried. The occupations within doors are rather indicated than enumerated in the following table:—

Work since November, 1842.—161 Shirts, 74 Shifts, 68 Flannel Jackets, 11 Pairs of Flannel Drawers, 19 Pairs of Trowsers, 38 Gowns, 39 Aprons, 52 Petticoats, 36 Bed-gowns, 81 Caps, 33 Habit Shirts, 202 Pocket Handkerchiefs, 50 Pairs of Sheets, 100 Bolster-cases, 24 Bed Quilts, 27 Beds, 12 Toilet Covers, 117 Towels, 10 Straw Mattresses, 6 Sea-grass Mattresses, 4 Straw Ottomans, 30 Door Mats, 10 Garden Baskets, 12 Pairs of Braces, 2 Flannel Spencers, 2 Worked Collars, 1 Pair of Worked Cuffs, 1 Knitted Cap, 40 Pairs of Socks, 6 Pairs of Stockings, 8 Ottomans, 40 Mats, 4 Patch-work Quilts, 1 Worsted-work Chair, 2 Worsted-work Footstools.

Although compelled to refuse admission to a number of patients belonging to the middle classes, and to decline an influx of the poor from other districts, from the want of suitable accommodation, we have been able to receive every pauper lunatic from the Counties of Dumfries and Wigtown, and Stewarty of Kirkcudbright, whether sent by friends, parishes, or under Mr. Fox Maule's Act. So that the most clamant cases have been provided for; and if a vast number of the insane be still without proper care, the responsibility rests with the parochial authorities upon whom they are dependent. Two individuals have been admitted on Mrs. Crichton's presentation to the Bursar class. One of these belongs to the humbler classes, has been long affected with the malady, and had become an oppressive burden upon those who were her natural protectors. She is now surrounded by friends and comforts, and seems partially conscious

of her situation. The other is a foreigner, cast upon our land by one of those political storms that scatter their victims far and wide, stripped of friends, country, children, and deprived of reason by her misfortunes, and by that ungovernable wish to revisit her native mountains, to which all Celtic races are liable. She is a lady by birth and education, and is now secured many of the privileges of her situation, although the violent character of her malady renders her incapable of enjoying to its full extent the boon conferred.

We have now an abundant supply of pure water. In accordance with a plan provided by Messrs. Grainger and Miller, of Edinburgh, an engine has been erected on the banks of the river, of eight-horse power, capable of delivering 48,000 gallons per day into a reservoir situated in the upper part of the grounds. From this the water passes through a capacious filter into a tank which communicates with the steam-engine in connexion with the house, and is, by its means, transmitted to cisterns in the roof, to be used for domestic and hygeinic purposes, as may be required. Our privations have been so great, our opinions as to the usefulness of bathing in the treatment of mental diseases, and in preserving the bodily health and tranquillity of those affected are so strong, that this addition to the comforts and capabilities of the Institution, is a subject for sincere congratulation. It is proposed, that the large excavation and disfiguration entailed upon the grounds by this undertaking, should be covered and concealed by the formation of a mound, which may serve as an outlook over the surrounding country, and may be sown with grass, and made ornamental by shrubs. It is the wish and petition of all parties, that this project should be executed by the inhabitants of the Institution.

The duties of the officers in carrying out the daily routine, are obviously many and momentous. They are every moment called upon to meet exigencies; to rule and regulate, to comfort and cure the insane; to educate their sane subordinates in proper views, and to a suitable and humane management of those they are appointed at once to serve and command; to yield up every private and personal feeling to the general good; to console when they are needful of that which they offer; to labour for the restoration of the health of others when ill at ease themselves; and at every exertion to encounter ingratitude, and violence, and disappointment, from those they struggle to benefit. In the performance of many of these tasks, the Superintendent has been most efficiently assisted and supported by his coadjutors, and by no one more cordially than the Apothecary, Mr. Wingett, who resigned his situation at last meeting, in order to prosecute his studies elsewhere. When it is stated that for the last four years this young gentleman has lived constantly with our patients; that his association was so intimate and domestic that he has scarcely absented himself from his duties for a day; that his sacrifice of the pleasures and pursuits of his age neither infringed upon his happiness nor cheerfulness; that he was trusted by the Superintendent beyond his years; that his general abilities, professional promptitude and firmness, his benevolent disposition, and unexhaustible store of good humour, conciliated the confidence and respect of every one interested in the well-being of the Establishment, and the friendship of every one within its walls; no higher compliment can be paid, no better earnest given of what is expected from his future course.

Such is the annual record of the past, and some of the aspirations and plans for the future. There is much to rejoice at, much to encourage a prosecution of the same humble, assiduous, benevolent course. Nothing is claimed of merit, except for an unwearied endeavour to take advantage of every means and occasion to enlighten reason, mitigate sorrow, and to raise up the broken spirit; or, where such attempts would be vain, to render the continuance of disease compatible with happiness and contentment. No success is boasted of or anticipated, except what Providence has assigned as the natural result of the judicious application of the resources of art, and an implicit obedience to the dictates of humanity.

W. A. F. BROWNE.

ANSWERS TO CORRESPONDENTS.

Mr. Grainger will certainly hear from us in the course of a few days.

We have been obliged to defer Dr. Collyer's letter till next week.

Mr. Pembroke's communication will appear in our next.

Mr Merryweather has been received. We have written to him in answer to his note. He will find a copy of the work he alludes to, enclosed for him at our Publisher's.

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A COMPLETE SYSTEM OF PHRENOLOGY.

TONE—(*Continued*).

IT is often spontaneously active. An individual cannot then help singing or thinking of tunes, although it is malàpropos to do so. An anecdote is told of a clergyman, who was so affected on his way to his church, that he was obliged to go into the fields, and sing out aloud before he could commence his duties.

NUMBER.

This organ is very difficult to observe, it is numbered 28, and is situated about the external extremity of the eyebrow, a little below and outward from the point called the external angular process of the frontal bone, it gives a fullness when large to the outer angle of the eye. It affects the shape of the external portion of the eyebrow, in some instances elevating it, but generally it is depressed and elongated, as may be seen in Newton, La Place, and many celebrated astronomers. It is large in the casts of George Bidder, Colburn, and Humboldt the mathematician.

Dr. Gall discovered this faculty by observing two boys who were remarkable for their powers of calculation, and in whom he noticed the peculiar appearance in the eyebrow. The observation of other phrenologists have fully proved the existence of this faculty.

Arithmetic principally depends upon this organ, and algebra to a considerable extent, but geometry requires many other powers. Mr. George Coombe is decidedly of opinion that great mathematical knowledge may be acquired with only moderate organs of reflection, as they are generally called, that is to say, the organs situated in the upper portion of the forehead, while others see the perfection of reasoning in mathematical studies. It is certain that many who who have especially excelled in mathematical studies, are remarkable rather for the large development of the perceptive faculties, than for the upper tier of intellectual powers.

Mr. George Coombe himself has a decided deficiency of this organ, and he says, "Arithmetic has always been to me a profound mystery, and, to master the multiplication table, an unsurmountable task.

The organ is very small in many savage tribes, and Europeans have found the greatest difficulty in negociating with them from their incapacity to estimate numbers. Some idiots and insane people have been remarkable for their powers of mental calculation, these facts prove incontestably the existence of separate mental powers in connection with certain conditions of the organization. We find a philosopher unable to learn his multiplication table, and a child, an idiot, or a lunatic, excel in mental calculation any of the learned professors in our colleges.

ORDER.

This organ, No. 29, is situated at the external angle of the superciliary ridge, and when large, gives a squareness to the lower portion of the forehead, it is between the organs of Color and Number.

To observe the appearance of this organ, large and small, the student may consult the busts or casts rather of Franklin and Curran, both cele-

brated men, the one the most orderly, the latter the most slovenly. Individuals in whom this organ is large, are much annoyed if everything is not kept in its place, they have a place for everything, and are so uneasy if any thing is misplaced, that they will often indeed be guilty of a rudeness by rising to adjust some ornament or piece of furniture in a friend's house, it hurts their eye, as is generally said and will make them quite irritable till it is put straight.

They cannot understand why people and servants cannot see, or are annoyed at slatternness, or irregularity, while they are themseleves the greatest possible bores to those who have small Order, it is impossible to impress on the minds of such persons the notion that it is of any consequence whether a thing is in its exact place or not. A lady with large Order should never engage a servant with it deficient, or they will continually be dissatisfied with one another. Its activity is much increased by education and example, it constitutes a principle element in harmony, mathematics, and all the exact sciences; how far it is within its function to arrange ideas, as in a discourse written or verbal is a question still disputed. Many cases we have observed induce the belief that the methodical arrangement of the parts and words of a discourse are relative to this organ, and the preceding one of Number, in fact they combine so immediately in activity with Time, Tone, &c., that it is in the present state of knowledge impossible to determine the exact sphere of each. Many of the most eminent men, Lord Bacon, &c., have distinguished between mathematical and logical skill, he speaks of men in whom "the mathematical part of their minds is good, but not the logical." Sir Isaac Newton and Professor Leslie have but moderately developed upper parts to their foreheads. They were great mathematicians and observers. So long as fact is the question, Sir Isaac Newton stands like a giant, but nearly all his theories are doubted, or have been corrected. Bayle and others, on the contrary, great reasoners as they have been, could never make much progress in mathematics. We now proceed to another group of faculties usually denominated the reflective powers.

REFLECTIVE GROUP.

The organs included in this group occupy the upper region of the forehead. The distinguishing them by the name of reflective faculties in distinction from the other intellectual powers, which it is said only perceive, is one of those popular errors of science, which unfortunately is too generally received as being fully established by facts, when in reality all the intellectual powers perceive and reflect, their sphere of action being different. The one class, the simple perceptives, perceive, remember, and reflect upon bodies and their attributes. The objecto relative on the relations which exist between bodies and their simple attributes. The upper group of faculties perceive internal existences and relations, remember and reflect upon them. The one to be first considered is numbered on the busts, 34, and is called—

COMPARISON, OR CONGRUITY.

This organ occupies the middle of the upper region of the forehead, above Eventuality, and when large gives a rounded fullness to this part. Dr. Gall's attention was called to this faculty, by noticing that a *savant*, with whom he frequently conversed, and who possessed much vivacity of mind, but whenever he found any difficulty in proving rigorously his positions, would always contrive to escape from a dilemma by some apt comparison; by these means he frequently silenced his opponents, and even carried them along with him. He observed a particular prominence in the upper and middle part of his forehead, and further observation convinced him of the connection between this part of the brain and the faculty of comparing. There has been much discussion as to whether this faculty compares objects in all their bearings, or whether it merely perceives similitude, we ourselves incline to the latter opinion: it perceives similitude when existing in objects which are altogether apparently different; in this respect it is the faculty which leads to analogy, generalization, metaphor, and figurative language. It compares, "a light seen afar in a dark night, to a good deed, shining in a naughty world." We perceive the similarity in different animals, plants, &c., so as to class them in species according to their points of similitude. We speak of *beautiful* sentiments *profound* awe, &c., and the aptness of the expression is perceived by this organ. To observe the similitude in fact between the abstract idea, and the word or thing is the sphere of this organ's action. It is very large in Chalmers, Curran, Pitt, and Sheridan, and the brilliancy of their speeches very much depended upon this organ and their Eventuality, &c. Many orators and preachers who pass for good arguers are really only effective declaimers; but as the organ of Comparison is generally well developed, they are understood by the many when really sound reason would be incomprehensible. Hence, to be effective as a writer, or speaker, there must exist a good development of this faculty: by its aid the most intricate and complicated subjects may be rendered pleasing and brought within the range of the comprehension of the many. In some authors this power is abused, analogy and comparison form the subject of their writings instead of the illustration. The comparison chosen for illustration will of course depend upon the other powers. Individuality and Causality supply them copious and appropriate. Ideality will furnish similies, beaming gently like the first shining forth of a summer's sun, sparkling with intensity, or howling in horror and dismay as it in its turn is mingled with the gentle or the harsh feelings of our nature.

REMARKS ON CEREBRO MAGNETISM, OR MESMERISM.

By Mr. F. S. Merryweather.

(Continued from page 170.)

Besides the cerebro mechanical action, there are the internal operations of the mental organs, resulting from another order of natural laws, which require even more attention, but which cannot be satisfactorily explained by metaphysical or even physical science, and in every probability will remain a mystery till our knowledge becomes considerably augmented, and obtains a more definite form. True, we might build some plausable theory, or found some ingenious hypothesis, but unless we can rest such on the sure basis of *facts*, they will fail to be of any permanent utility. The wonders which Mesmerism has yielded for our investigation are of such a complicated description, that it is difficult to decide upon the exact nature of the phenomena produced. Hence it is such difficulty is experienced in drawing just conclusions, or making any extensive or well-founded generalizations. The subject of the mental operations is one of great interest, and however much we may regret the blindness of past ages, or shun the practice of following, with respect to mental science, the metaphysical errors of a Locke, we ought not to forget that the attempt to define the psychological operations was a grand and brilliant effort, and one which will ever remain a proud monument of his fame. The philosophy which illuminated the immortal essay on the human understanding, contains thought that could alone emanate from such a brain as that of the celebrated metaphysician, nor is the whole a fabric of error and ignorance. It has not, it is true, that immoveable foundation which nature alone can afford. It is but a glittering show, in the elevation of which the sublime materials of truth are intermixed. But although we cannot admire the basis, still we might find something useful among the materials. In ages long before the time of Locke, in the antique periods of the ancient metaphysical schools, the learning of Rome, the philosophy of Greece, the lore of Athens, and even the magical arts of the Egyptians, were employed in vain to discover the grand secret of nature, the essence of the human mind. But the age when a knowledge of nature was sought for in the cell of Isis, surrounded by magic and symbolic mysteries—when knowledge was arrayed in the superstitious but imposing arts of astrology—was not an age to mature (although perhaps to sow the germs of,) a true and philosophical knowledge of the mind of man. Those who studied and spent the midnight oil in vain researches, only became more convinced of its wonderful nature and profound mystery—the learned read and thought, searched and wrote in vain, to found a logical explanation, or philosophical reason, for this grand and manifold secret of nature.

Aristotle doubtless considered that the brain was the organ of the mind. He divided the mental powers into Common Sense, Imagination, and Memory, the two first of which he located in the cerebrum, and the latter in the cerebellum. Others only distinguished *Understanding* and *Will*. The physiological discoveries of Gall have proved both these opinions to be erroneous. It appears that Bacon, and other metaphysical writers, have followed in the steps of the immortal philosopher Aristotle, and employed his theory as the groundwork of their speculative writings. They teach that the grand elements of the human mind are Memory, Reason, and Imagination. It appears evident by all logical reasoning, that before we can exercise certain faculties of our mind, we must have obtained an extended knowledge of the external world, by a studious application, involving the action of a combination of many separate and distinct mental faculties. Many individuals are organically deficient of those elementary qualities which constitute Memory, Reason, or Imagination. Although the faculties are distinct, there are but few studies to which we can apply our mind that does not involve the action of a great number of our intellectual organs. It is true some pursuits require the exercise of certain organs more particularly, and the capability or incapability of performing these various actions of the mind, will be manifested according to the organic development of their respective cerebral parts. Memory, perhaps, is the most important part of mind; without it, the observation of the philosopher, or the readings of the historian, would be useless. It would be the mere act of observing facts, from which it would be impossible to generalize, or draw useful and just conclusions. It is the foundation of all learning, all reasoning, and all philosophical deductions. The organs of the mind, therefore, engaged in the function of Memory, may be considered of pre-eminent importance. *Observation* is a prior mental operation, involving the action of the perceptive faculties and the senses; of the latter, sight is the most important. It is by the instrumentality of the eye that we externally perceive, supplying material food for the intellectual employment for our cortical perceptive faculties. When the vision is directed to a particular object, taking cognizance of it—a picture for instance—nearly the whole of our perceptive faculties are called into activity. We first obtain in a general way the *Size* and *Form*, and then the *Colour* and *Number* of the objects delineated on the picture; and if inspected with greater scrutiny, the *order* in which they are arranged, which, after being perceived, combine the results of that perception in the organ of Individuality.* If there is a deficiency in any of those parts of the brain appropriated to these particular functions, so will there be remarked a corresponding imperfection in the results or conclusions arrived at from viewing any object.

If, then, it is true, that the simple fact of

* Coombe.

observing anything calls into play the whole, or the principal part of the perceptive faculties, how is it that such a combined function should be manifested by exciting, mesmerically, only *one* of its constituent parts? How often do we produce, by placing our fingers on one of those organs whose function it is to perceive, a *description* of some imaginary objects having qualities, to obtain an idea of which must involve a combination of all the functions of those cerebral parts assigned to the power of perception. Memory is the power of recollecting those objects which the perceptive faculties have taken cognizance of, and it is their generalization, &c., that constitutes reason. "External objects furnish the understanding with ideas of its own operations."* Reason often leads to grand scientific and philosophical discoveries, by the employment of those ideas which have been observed by the perceptions, and fostered by *Memory*. To employ these ideas, and to invent, requires the aid of several natural organic reflective powers. *Comparison* adds greatly in discovery, because by it we are enabled to detect minute differences, and it is by reflecting on these differences that discoveries and inventions are brought to maturity. Here, then, we remark a considerable difference between reason and imagination; the one merely *employs*, while the other mentally *creates*. These processes of the mind engage different faculties in their development. The astronomer may not be poetical, nor the philosopher imaginative, yet invention employs, and imagination builds, with the materials, the natural phenomena and physical qualities of which, the astronomer and philosopher were engaged in defining and analysing. Imagination does not solely depend upon the variety of those things it has seen; it often deals with those it has never seen, although perhaps representing imaginative ideas by forms already known, and of which a recollection has been retained by means of Individuality, &c.

Let it not be supposed that the theory of combination is solely metaphysical. It has been maintained and acknowledged by our most scientific phrenologists; and although many talk about "dangerous premises," and "wandering in a maze of metaphysical nonsense," still it cannot be denied, that without it we are not able to explain even the most simple of those internal operations which constitute the human mind. Many, however, seem erroneously to consider, that it simply requires a large development of a cerebral part, *Wit* for instance, and the individual will be capable of excelling in that particular faculty. True wit, however, is generally defined by the reflective phrenologists, or as some would perhaps term them, the metaphysical phrenologists, as *detecting* and *appreciating* minute and analogous differences. This appears correct; but it also becomes evident that Wit is a *combined* function, there being two at least of the reflective organic parts called into functional activity to accomplish this. The act of comparing belongs to *comparison* and the perceptive faculties. Its appreciation belongs to that cerebral part designated by the compound name of *Wit*. This rule applies to all the faculties. Constructiveness is a compound function, especially requiring the immediate aid of several perceptive faculties. *Comparison* is also intimately connected with it, and in combination with other faculties increases and varies according to its application. Thus, if it is applied to constructing from a fixed plan or drawing, the cerebral organs of *Imitation* and *Comparison* are particularly necessary for its execution. The manifestations of this, as well as many of the other faculties, varies according to the influence exerted over them by the sentiments. In some we find Constructiveness influenced and guided by *Veneration*, among the ancients more especially. The Egyptians spent their time and wealth in erecting tombs and gorgeous mausoleums. In the architecture of this antient nation, we discover a curious combination of cerebral formation—it was evidently a cultivated Constructiveness, swayed and influenced by a preponderating *Veneration*, amounting to a blind and morbid superstition. Their religion taught them that their ethereal soul, when separated from the body, would remain and travel the terrestial world; inspired with this idea, they spent their lives in providing a magnificent tomb for its future habitation. Now it cannot be said that *both* these manifestations result from the same organic parts—its analysis proves each to be a separate and distinct combination. How this combination is to be physically explained is yet to be shewn; many no doubt say, this proves the brain to be a single organ—I answer not at all. We might as well say that the whole muscular system is a single organ. It is true we cannot anatomically define why the same description of cerebral substance, in consequence of being situated in a different locality, should manifest a totally different function, but although we cannot *anatomically* demonstrate this, yet we can show good *physiological* reasons for concluding that each part is a distinct organ. No effect can be produced without a cause. It therefore follows that every different effect must have a different cause—the various mental effects cannot therefore be considered as the mere modified effects of the *same cause*. Phrenologists generally define the brain as a congeries of organs having no immediate connection, but capable of acting solely and separately. The accuracy of such a definition is exceedingly doubtful. The brain may be considered as a beauteous machine, united and complicated, whose separate functions harmonize to produce one great whole. There is doubtless a nervous connexion existing to and from all parts of the brain, and thus combining or communicating the numerous mental organs; and as the function of the medullary matter is to transmit the impressions which one part has received from another, may it not be that when

* Locke's Works, vol. i. p. 79,

one cerebral organ is excited, it sympathises with those particular functions necessary to perform those manifestations evinced.

As the character of an individual depends upon his cerebral organization, so the predominant organic parts in that organization affect the whole of the various functions. Thus the individual with a preponderating Self-Esteem, will be haughty in his manners and in his actions towards his fellow men. The miser, to gratify his sordid *Acquisitiveness*, loves to satiate his avaricious eyes on his polluted and useless gold—it is for gold he exerts his intellectual powers, his moral sentiments, or even his animal propensities. Nothing to him possesses an interest which has not some pecuniary object as its reward; for gold he lives, and for the love of his mammon god he dreads the separation which death effectually performs. The philanthropist, whose moral organ of Benevolence sways, rules, and influences the animal, and even intellectual operations, loves to administer to the wants and comforts of his fellow creatures. His greatest delight is in befriending the needy, or consoling the distressed; his most enthusiastic theme, the object on which he delights to exercise his mental powers, is the regeneration of mankind. This rule applies to all parts of the human mind.

It is true we often find persons who cannot be said to have a fixed or marked character; these, however, are exceptions, and results of an organic equilibrium. Men with such organization, seldom if ever manifest any striking pecuarity in their dispositions, or attain to any degree of celebrity; but if only one feeling preponderates, it suffices to give an impulse to the functional activity of the cerebral parts. The natural tendency of every innate principle is to seek its gratification, because its gratification produces joy. The ruling feeling of every character seeks its gratification, and in so doing employs many of the mental faculties; thus the superior development of a cerebral part gives a *tone* to the whole character. An organ cannot perform two separate actions, or participate in the formation of two mental combinations, at the same moment of time; every psychological manifestation requires more or less the aid of the reflective powers, whether it is the action of a sentiment or animal propensity. If we view a diversified scenery, or a collection of various objects, these undoubtedly act upon different organic parts, such as Causality, Ideality, Wonder, &c.; but although so many parts are thus called into a state of activity, we are only capable of obtaining one thought at a time from such a prospect, and often that idea, on account of the heterogeneous combinations thus effected, is indistinct and unintelligible. In contemplating or mentally dwelling upon any subject our reflective faculties become employed. The combination requisite to produce such thoughts, might not engage the whole of our mental powers, still however those *not* so employed, are incapable of combining to form *another* idea, for the mind cannot entertain two ideas at the same moment of time.

I may be asked, why may not the other unemployed organs be engaged in producing mental phenomena? Or, in fact, why can we not think of a number of subjects, or entertain a number of ideas at the same moment of time? For this obvious reason,—that every idea requires the aid of the intellectual powers; and as they cannot participate in the formation of two ideas instantaneously, and being previously employed, those requisite faculties are not disengaged to enable them to effect that combination necessary for the formation of another idea, however simple. If, then, an apparently simple idea involves the exercise of a combination of mental faculties, how is it possible to obtain the excitation of *one* faculty separate and distinct from another? And if it be admitted that to manifest deep Causality, or acute Wit, requires the joint aid of several other organs of the mind, it becomes evident that the cerebro-magnetic excitation, as at present understood and defined, must be erroneous.

Of all opinions maintained by mesmerists, the *negative* theory is the most adverse and destructive to the practical utility of Phrenology. The present state of the science is comparatively easy and plain, when compared and viewed in conjunction with the complicated systems of the ultra-phrenomesrists. Phrenology is capable of an extensive and important application—we can hardly measure the bounds of its utility. It may be applied to criminal jurisprudence, to the legislature, to the treatment of the insane, to the principles of education, to the choice of professions, to the marriage compact; and, indeed, to all the acts which govern and actuate men individually, or nations collectively.

The modes in which some phreno-mesmerists have endeavoured to reconcile apparent contradictions, appears (if they really are not) rather ridiculous. Take an illustration of this from the warm advocate and expounder of the negative theory. In an early number* appears a letter from J. C. James, containing an account of some mesmeric experiments on Mr. Knight, the results of which were so extraordinary, that the writer candidly acknowledges he was at a loss to account for it. It appears that after some little difficulty the cerebral organs gave very marked manifestations in accordance with their phrenological character until," says he, "I pressed the organ of Veneration, under the influence of which he rose from his chair and most enthusiastically *picked my pocket!*" a manifestation equally extraordinary was elicited from Mr. Hutton; for when the magnetic power was applied to his cerebral organ of Veneration, "a strong feeling of aversion and repulsion was displayed." Here we have manifestations produced, differing materially from those commonly evinced. These manifestations doubtlessly depended upon the peculiar organization of the gentleman operated upon, and it should have been also recollected, that *all*

* Phreno-magne No. 5, page 142.

the cerebral organs collectively, and many individually, had been previously charged with cerebro-magnetism; and we are not told that before Veneration was excited, the others had been magnetised. Nor are we informed, (which appears very likely) that before the Veneration of Mr. James was mesmerised, Acquisitiveness had been called into active operation; or in Mr. Hutton's case, Combativeness. Considering these circumstances, it is difficult to perceive how Veneration could manifest its proper and legitimate function; and this would be still less probable if, *naturally*, some of the organic parts whose formations are of an opposite nature, were highly susceptible and active. But differently argues Mr. S. T. Hall, he says in an editorial note: "The organs influenced in both cases were *negatives*. It was *not* Veneration, but the negative one of Generosity, influenced in Mr. Knight. What had suggestion or the operator's will either to do here? perhaps some of our phrenological apponents will answer this." Really this is a most extraordinary and unphilosophical course to pursue. No sooner is an apparently contradictory, or an inexplicable evolution given, than a *negative* is invented to account for the difficulty.*

We cannot doubt that often a mental combination is called into activity by means of this magnetic influence, nor can we deny that it is sometimes the result of *suggestion*, but it is a matter of considerable uncertainty whether any reliance can be placed upon these experiments as facts to *extend* our knowledge of the phrenological divisions or the brain—what may be hereafter done with care and observation, time alone can show. There is little doubt that mesmeric phenomena might be of great service to phrenologists, if the practical students in reporting cases would be more minute in their details, and register the *organic development* and if possible the *functional activity* of the patient's cerebral parts, and Mesmerism would then be found to *confirm*, instead of perplexing the science of Phrenology.

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* See also numerous other cases reported in various numbers of the same interesting publication, No. 3, page 91, contains a letter from Mr. S. Potchett, wherein is recited the words or manifestations given by mesmeric patients, which appear when subjected to the ordeal of analysis, far from corresponding with the *true functions* of the organs alluded to. Cautiousness appears to have been very active, and to have combined with other funtions. Thus, for a manifestation of Locality, the following was given: "Oh! I am afraid I shall get a cold with my light shoes on, but I must go," surely this was a compl-x, and not the simple function of Locality,---again for Wonder, "Wonder what we shall have for our dinner tomorrow," "Wonder if it is fine weather,—rain,—snow,—time of day, &c." Now no one will say this was the legitimate function of Wonder; it was here given as a word of interrogation, and used in place of the word "what" but such illustrations of the cerebral (?) manifestations are by no means a rarity. The majority of the cases recorded seem to accord more with the *name*, than the true function of the organ excited, or supposed to be excited.

THE PEOPLE'S PHRENOLOGICAL JOURNAL.

We fear the controversy between Mr. Deseret and ourselves is but little likely to have a satisfactory termination, as far as the combatants are concerned. It appears that our arguments have merely confirmed him in his previous views, while nothing that he has written has approximated our opinions one *iota* to his theory. This then might appear a proper time to terminate the discussion, as both have pretty fully expressed their views. But unfortunately there are many things in Mr. Deseret's last communication that require from us either explanation or correction, besides which, it appears that in one material point we have not, hitherto, quite understood him. Our argument being, therefore, as yet incomplete, we cannot, with propriety close the discussion without a few other remarks. We shall endeavour to be as brief as the nature of the case will admit, as we have no desire to overburden our readers with any one subject.

Mr. Deseret reminds us that we have deserted our "favourite triangle, sphere, castle, landscape, and human being, and altogether abandoned other positions which we at first thought invulnerable." Mr. Deseret is hasty in his decisions. We are not aware that there is anything in our last argument contradictory of anything in the former, nor have we in the least changed our opinions in regard to this point. We did not notice the few remarks made upon it, partly because they leave the argument unaffected, but chiefly because our article had extended, with matter of more immediate consequence to a greater length than we wished. If all previous arguments are to be perpetually reconsidered, the concluding papers of a controversy must be of interminable length. Mr. Deseret continues by telling us that for our triangle, castle, &c., he now finds us substituting a pig and a flower-girl, behind which we imagine ourselves to have found a safe retreat. We must remind Mr. Deseret, that such a representation as this of what we have said is merely *ad captandum*. Such caricaturing cannot advance the cause of truth, nor add to the credit of the party adopting it. We are not arguing as lawyers, but as men of science. It is the duty of a scientific

controversialist to place the arguments of his opponents not merely in a fair, but even in their strongest light, to the best of his judgment. Then, if he finds them erroneous, let him, if he pleases, trace out inexorably all the contradictions and absurdities that result from them. We have in every case, without the least exception, endeavoured to give the clearest statement of every one of Mr. Deseret's opinions, and to do the fullest justice to his arguments. In the article before us we can hardly recognise many of our own views and arguments from his manner of speaking of them.

In coming to the real business before us, we must call Mr. Deseret's attention to one striking fact, viz.—that all the fundamental positions of his theory, as stated in his three papers, are *pure assumptions, unsupported by any argument.* This may seem, to some of our readers, a startling assertion, but let them examine these papers, clause by clause, and they will acknowledge its accuracy. His principal positions are as follows:—

1. That the organ of Language takes cognizance of the relation of sign between our perceptions, emotions, and reflections, and their external manifestations.

2. That without this organ we could have no consciousness of an external world, all the other perceptions being internal, and giving us no idea of the existence of external excitants.

3. That without this consciousness, without a a distinct belief in the existence of a material world around us, we should be wholly incapable of making the slightest external manifestation of intellect or feeling; and

4. That without this consciousness, all our other perceptions would be wholly incapable of exciting any of the propensities or sentiments of our nature.

Now we assert that not one of these propositions is self-evident. They require, therefore, to be supported by *à priori* arguments, or by special evidence. There are no *à priori* reasonings given; what is the special evidence? There is an *approximation* only to this. It is asserted that all men and other animals have the power of manifesting externally their ideas and feelings in proportion to the development of this organ, *ceteris paribus.* How is this assertion proved? Has it been shewn to follow from self-evident truths, or principles already demonstrated, or facts of which there is no question? No attempt of this kind has been made. Has it been proved by direct observation? This is physically impossible. There exist, and have existed, millions and millions of animals who have never been examined in reference to it. Those who have been can amount, at most, to a few thousands. Such a position could never be raised to anything more than probability, by observation *alone.* But even if it could be proved, it requires to be shown that the propositions above stated follow from it. The matter is not self-evident. So far from it, that a variety of solutions might be offered of such a fact. No arguments have been given to show that the law follows from the fact. On the contrary the fact is an assumption, and the law another.

We assert that these four positions are fallacies; the *onus probandi* rests naturally upon their proposer; we shall be ready, for our parts, to support our assertion when it shall be necessary. As to the facts of the case, we admit that there are a great number which coincide with Mr. Deseret's opinion, but we assert in turn that all of them admit of other, and better explanations. We assert too that we have observed a large number directly opposed to his opinion. On what principle is he justified in calling in question our observations, while he requires us to admit his own? He talks of imaginary flower-girls. But we beg leave to tell him that we have seen what we have spoken of. And from the nature of his remarks it is evident that his observations, in this quarter, are not very extensive. Whereas we doubt if there be any one who has, within the last two years, made more or minuter observations on the characters, and physical peculiarities of the different classes of people in the metropolis than we have, the subject being exceedingly interesting to us from its bearing upon ethnology. Mr. Deseret is very inaccurate in the statement of our opinions. We did not say "that the flower-girls of London have small eyes." We said that they "very generally approximate" to a certain type of head and face, of which small eyes is one of the constituents. We spake of a certain natural division of mankind to which these flower-girls very generally approximated. We might have mentioned other persons besides these as belonging to it, but we mentioned these as easily to be distinguished amid the masses that throng our streets. Mr. Deseret slights these observations made upon real life and refers us to *pictures*, as if the works of artists could be received as conclusive evidence of the exact forms of those they

represent, as if there were many artists who would scruple to improve their works by a slight enlargement of the eyes! There is perhaps no feature in the face so usually exaggerated as the eye. Mr. Deseret talks of all the great masters in painting, sculpture, and engraving, both ancient and modern, having this organ large, as if he had actually *seen* portraits and busts of *all* of them, and actually *knew* those he had seen to be *perfectly* accurate in this feature. He talks about *all* orators, actors, &c. &c. with equal confidence. And yet when it alludes to living men and women our remarks are slurred over as quite undeserving of consideration. We are acquainted with numbers of persons whose mental manifestations no way accord with Mr. Deseret's theory Some of these have large, some medium, and some small developments of this organ. But it is not with individual cases alone that Mr. Deseret may be opposed. We are much mistaken if whole nations and races may not be arrayed against him. Small sunken eyes are a characteristic feature of almost all the races of the Chinese Empire, and of the Tartar tribes to the north of it, are we to be told that these races manifest their predominant feelings very faintly? We believe too, that the Irish peasantry have mostly very moderate or small eyes, and yet their intensity of feeling, and power, and vividness of manifestation are proverbial. We repeat what we have said in respect to the elephant, the infant, and pig. The natural language of all of them is as exact a counterpart of their feelings, as that of the greatest man who ever lived is of his feelings. The mental movements of the elephant are usually slow though powerful, and such are his bodily movements, his natural language. But no one we believe who has seen an enraged elephant has even spoken of the feeble manifestation of its feelings. When it is calm, its natural language is, of course, but little vivid. As it becomes excited this also becomes more vivid. Could this animal display the language of attachment, for instance better than it does, if its eyes were ten times as large as they are? Natural language must be taken with the qualification *ceteris paribus* as well as everything else. Allowance must be made for the particular structure of the animal. You cannot have an elephant capering about like a dog, nor displaying the agile movements of the tiger, nor the numberless changes of countenance of a human being, but it certainly gives the most unequivocal manifestations of the exact state, power, and character of its feelings. The perceptions, sensations, and feelings of an infant are few; most of these are very feeble, some vivid; its natural language is exactly accordant: Mrs. Siddons could not improve it. The pig has but few energetic feelings: these are vividly manifested. Those that are feeble, are feebly manifested. What more can be predicated of man? Does any one believe that the hungriest and most eagle-eyed hunter that ever tracked a forest could display the natural language of voracity more energetically than this animal. If we are wrong in these statements let Mr. Deseret *prove* that we are, it is not enough to set the matter aside with a wave of the hand. We are uttering the common opinions of mankind, and they deserve, therefore, a respectful consideration from every reasoner.

It is quite impossible, that in the limits we are compelled to assign to ourselves on this occasion, we can allude to all points in the article before us requiring remark. There is nothing in it, however, that we can have any possible reason for shrinking from; and therefore we trust Mr. Deseret will not this time construe our silence into fear. In argument we have no second course. Our habit is to move directly forward, whatever may be the consequences. We must therefore call Mr. Deseret to "order" in that part of his paper, where speaking of some explanation of his, which he says we have overlooked, he adds, "and it was probably convenient for your argument to do so; but you are aware that this is the point on which my whole reasoning turns, and you probably thought it as well to avoid it, as it seemed no way favourable to the support of your objections." We repeat; we are arguing not as pleaders, but as men of science, and we can assert, with confidence, that there is not a line of ours, in this Journal that can countenance any insinuation of this kind. Such remarks ought to be banished from scientific discussion. We may just observe in passing, that we suppose we did not think of alluding particularly, on the occasion, to Mr. Deseret's position because our argument is wholy independent of it, as we shall hereafter show.

In speaking of that part of our argument where we allude to the organs of Time, Place, Locality, Causality, and Comparison, Mr. Deseret says, "I cannot well comprehend what you intend to convey, when you say that these organs do not create their respective perceptions,

but only perceive them." We do not wonder that Mr. Deseret should not understand such a piece of nonsense as this. But we never said anything of the kind. We said that they do not create their respective *object*,—those things which excite them. Mr. Deseret must have read our remarks very hurriedly, for we have explained our meaning very fully, and we apprehend, very clearly.

We find that in touching thus briefly upon a few of the secondary matters requiring an answer from us, we have exhausted the space at our disposal this week, otherwise we should have shewn that our arguments remain unaffected, and for the most part unanswered, by Mr. Deseret, that in fact he merely meets us with reiterated statements of his fundamental positions, the very points in discussion. We shall endeavour to give, on a future occasion, a clear and brief view of his theory and its consequences, and then leave our readers to embrace it or reject it as may seem best to them.

REVIEW.

THE RATIONALE OF MAGNETISM, ANIMAL AND MENTAL, TESTED BY EXPERIMENTS OF A NOVEL KIND, AND ESTABLISHED BY FACTS. By *Samuel Spurrell*. P. Richardson, 23, Cornhill, pp. 82, 12 mo. Price One Shilling.

This is indeed an age of wonders. Hardly have we recovered from one fit of astonishment, when something more astounding breaks upon us. Mesmerism in any shape is sufficiently wonderful, but now it seems we shall have to believe that the wildest dreams of the wildest enthusiasts hardly reach the realities which actual experiment places before us. We have lately had to speak of the curious facts brought to light by Dr. Collyer, who is a great magician in his line, but Mr. Spurrell has the merit of introducing to us one who is the king and father of all mesmerisers. This personage, (in the words of Mr. Spurrell,) "is MR. BENJAMIN DANN, of Maidstone, in Kent, who, although in humble life, is justly entitled to the designation of an experimental philosopher, whose whole energies, as opportunities have been afforded him, have been directed to scientific discoveries; and HE it is, who has not merely developed to us the AGENT in animal magnetism, but by a series of experimental tests of a NOVEL kind, and of a nature *more conclusive* than any others that have hitherto been submitted to human observation—it is *he* who has thus, in proof of his positions, established facts that are incontrovertible. Subjoined is his narrative, as nearly as possible in his own words, since to alter it would be only to mar the *interest* of the piece." And this narrative is truly one which would have made Mesmer die with envy, and which leaves us in no little bewilderment as to what to decide in reference to it. We cannot consider it a hoax, for it has no appearance of being such. As a hoax it is both too clever, and too foolish for those who have produced it. It is not brought out in the manner calculated for creating a sensation, and therefore it would be a foolish hoax, and there runs through the whole work such an air of simplicity, sincerity, and genuine enthusiasm, that we think it could hardly be feigned by a genius of the highest order. If the statements made be not a series of the most impudent falsehoods, they leave no doubt of the possibility of producing states of magnetic clairvoyance never before considered possible by any reasonable man. There is no medium between impudent falsehood, and a most astounding truth. The relations are so clear, so simple, so numerous, so circumstancial, that it is altogether impossible to get over them by any supposition of unintentional delusion. The few extracts we shall lay before our readers, will satisfy them that there is nothing here but facts or fallacies, and that if facts, they carry with them their own explanation in a manner that admits of no dispute.

The object of the little work before us, is not only to lay before the world the experiments of Mr. Dann, but also to give their philosophy. This appears to be the task of Mr. Spurrell himself. This part is, to the general reader, a very secondary one. Whether Mr. Spurrell is more or less right or wrong in his reasonings or theories matters not much in a case like this, while a clear record of numerous facts are placed before us. If he is right, so much the better; but if wrong, it will be no great matter, for his errors will soon be detected by others. We shall not now stay to examine his theory, as our readers will be impatient to have some notion of the character of the facts he has been the means of placing before them.

The patient principally concerned in the experiments of Mr. Dann, is a young man of the name of Edward Wisenden, about 19 years of age, who has spent the greater part of his life at New Romney, in Kent, and at a small village near Maidstone. Being much occupied during the week, and even on Sundays, as a tract distributor and sunday-school teacher, he has had but little opportunity of acquiring any knowledge of what is passing in the world. "He has never been in London, or ever read any account of its public buildings, or of what is considered worthy of notice there." Nor has he, it is said, read a newspaper for six months past. So that his whole knowledge of most of the subjects mentioned in his clairvoyant state, has been derived from such particulars as Mr. Dann has afterwards communicated to him. Several experiments of the more ordinary clairvoyance are given, which are very precise and striking, but these we shall pass over to come to Mr. Dann's *second* and more important class of facts. The experiments are all numbered: this class begins with number six, Mr. Dann speaks.

EXPERIMENT SIXTH.

"Early in the Spring of 1843, I observed a very singular phenomenon on putting E. W. into the mesmeric sleep: as I rubbed his thumbs and gazed in his face, it assumed a shining appearance, as if spread over with luminous oil, and simultaneously with it the skin appeared of a deadly white colour, and this luminous appearance extended *beyond the surface of the skin*, surrounding the head with a luminous atmosphere. The features of the face were apparently much enlarged, and so altered I could not recognise him; and what is very remarkable, the eyelids had become so perfectly transparent that I could see the eye-balls through them more clearly than in the natural state with the eyes wide open, although they were now shut.

"On this uncommon and unnatural appearance presenting itself, I felt rather alarmed, but reasoning on the case, I thought the altered appearance might have been occasioned by fixing my eyes on one particular spot, and that it was altogether an optical illusion; I then looked in another direction to relieve my eyes, but on looking again at my patient the same appearance remained, and this I repeated several times, until I came to the satisfactory conclusion that I had not deceived myself, but *that it was a real change that the patient had undergone in passing into the sleep.*

"The same appearance has presented itself twice or thrice since; but as my patient became more and more susceptible of the mesmeric sleep at each succeeding operation, inasmuch as to be thrown into it in a few seconds only, and the sight being by no means pleasing to my eyes, I did not attempt any further experiment of this kind.

EXPERIMENT SEVENTH.

"But this singular phenomenon was brought afresh to my recollection on the evening of Friday, July 21st, when I again put my patient, E. W., into the mesmeric sleep, in a room where another patient had already been subjected to it by another operator, when the lads began remarking upon each other at the very singular appearance each exhibited. E. W. said that W. C. was covered all over with fire, and W. C. said that he compared E. W. to a blue-devil, (alluding to gunpowder on fire in the wet state). At the same time a very powerful attraction was evidently exerted between them: they conversed freely together at the distance of three yards, though their EARS were closed to those who were nearer. One of them now beckoned to the other to come to him, and the other said he as much wanted to go to *him;* at last we (the operators) allowed them to go together, when a most interesting effect was produced, evinced not merely by a feeling of pleasure visible in their countenances, but more powerfully verified by their movements—taking each other by the arm with manifest delight, drawing their chairs close to one another, and talking together in the most familiar manner; but it growing late we thought it advisable to wake them, which was not accomplished without some difficulty.

"There were about twenty persons present on this occasion.

EXPERIMENT EIGHTH.

"After the very interesting results of the last, I prosecuted a series of experiments with one or two clairvoyant patients together, without obtaining a single contradictory remark from either of them. On the 24th, having the two young men before alluded to in my room together, I first put one of them *only* into the sleep, and directed his attention to the other, when he remarked 'that was the person he had been looking for so much, but he did not look now as he did when he saw him before, (meaning at the previous experiment on the 21st), which he would not do, as then he was in the mesmeric sleep; now, he had not yet been mesmerised;) he was then, (on the 21st), covered all over with *blue fire* like unto phosphorus, and was so plump and fact, but now he was so thin, and such a little chap, he hardly knew him,"—(a clear proof that without the envelope of *fire* or the being covered with magnetic fluid, he would still have appeared in his normal state). On directing my eyes to my other patient to induce the sleep, E. W. exclaimed, 'Oh! look! he is coming all over fire again; look! *it is flowing from his* EYES, down his face and over his face!' and when I began to make the passes; he said, 'There it goes, (the use of the passes;) it is now spreading all over him, down his arms and down his legs; when I had made two or three passes down to his feet, he said, 'See! just look, *he is now covered all over with it*, just as he was when I saw him before, (on the 21st;) he is looking so plump and so fat." They then drew their seats near each other, and began to talk freely together, asking each other where he had been, and congratulated themselves that they had met again; at last they proposed to take a journey together, and it proved very interesting to me, but as it does not relate to my present object, I leave it."

On being questioned as to the nature of this fire, one of them compared it to that of a lucifer match, and the other said "it was like a preparation of nitrate of silver—when rubbed it would spread all about you."

EXPERIMENT NINTH.

On the 26th of July I reversed my experiment, and put E. W. into the sleep FIRST, and directed his attention to the other patient, W. C., *whilst awake*, and E. W.'s remarks were similar to W. C.'s in the former experiments, viz. "That he was looking very thin," &c. And when I directed my eyes to W. C. to induce the sleep, E. W. exclaimed, "There, there! do you see that? *There is that blue fire again, running from his eyes, and spreading over his face and all about him; he will soon be covered over with it*, AS I AM;" and when W. C. had completely passed into the *sleep*, I excited the organ of Language by *pointing* to his eyes with my fingers, when on doing this, E. W. exclaimed, "*Look! look! there is fire coming from your fingers and from his eyes*, AND THEY JOIN TOGETHER."* I continued to point with my fingers, when E. W. exclaimed, "See! see! he is now going to speak, I can see that he is getting ready for it." I then asked him how he knew that he (W. C.) was going to speak? He answered, "Oh, I can see it by his looks, for I can see his head inside,—the brain all in motion; I know he is going to speak." And when he began to speak, he congratulated me upon meeting him again, and then they congratulated each other, and drew their chairs together, but growing late I awoke them."

There are four or five other interesting experiments, chiefly of an analogous nature, which

* Proving the joint co-operation of operator and patient in producing the effect.

we must omit. As to these luminous appearances, it is just possible that they may have been, in the first instance, one of those visual illusions to which some persons are subject, and which depend on some temporary irregularity in the perceptive organs. If such were the case, in regard to Mr. Dann, his impressions might have affected his patients, unknown to himself or to them. We do not give this as an explanation; we give it for the sake of those who prefer grasping at any straw rather than receive a fact of so singular a kind. As for ourselves, we know not what to think. We must wait for further confirmation. In regard to the next class of experiments, we cannot offer our readers even a straw to prevent them from sinking into the abyss of marvellousness yawning to receive them. These, we are told, develop a new faculty in clairvoyants, viz,—that when *demesmerised*, however long the interval before they are again put into the sleep they can then narrate particulars of every thing that has passed, in the interim, far or near. Without going so far as this, these experiments, if true, prove this much at least, viz: that Mr. Dann's patient could relate the whole series of events, connected with the matter to which his attention had been particularly directed at the moment that he was demesmerised, the whole series of events we say, which had transpired between one state of clairvoyance and an other. The existence of this power was discovered by chance. Several curious experiments are given in illustration of it. We proceed to those having reference to Buckingham Palace. In one of his journeys to London, the patient is sent to Buckingham Palace. This is in Experiment Twenty-third, which thus continues—

"'I ean see yonder some iron gates; is that Buekingham Palaee, the plaee you want me to go to?' I said, 'Yes;' when he paused and said, 'I don't like to go in here, for there are soldiers walking to and fro; there are two—such tall men—*I don't like to pass them.*' I told him that they would not toueh him, when he presently said, 'I have passed those tall soldiers, and got to the steps of the palace, but I don't want to go *inside;* I want to look about me *outside*, it is so pretty. I I have never seen a place like this before.' By *persuasion* he enters the Palace, and immediately exclaims, 'How grand! THIS IS NOT A FIT PLACE FOR ME.' I persuaded him to stay and look about him, when he soon finds a large room, and said, 'I have got into a large room—such a grand plaee; and there are many in it. I shall not stop here.' He then enters several other rooms, and said, 'I dont see any body in these rooms; I will go back to the large room again, where I saw so many.' Entering the large room, he said, 'I WOULD RATHER BE OUTSIDE; it is sueh a fine plaee. I don't like to be here. What a grand plaee this is! I ean eount fourteen gentlemen and ladies round a table, and one man appears to be older than the rest; he has a long visage, and is dressed like a soldier; he has a star on his breast, and some of the other gentlemen have stars too, like that. There are some ladies, and one of them appears younger than the others; and that young lady has a wateh at her side, on the outside of her clothes; it is a very small one, but very pretty; it appears *to be all gold, except some little studs all over the back, and they shine like diamonds;* the face is turned inwards it is a very thin one, and looks yery handsome; it is six minutes past ten by it. I will now look at that gentleman's if he has one; him that I looked at just now. He has one; it is in his waistcoat poeket; it is a very handsome one; it is four minutes and a half past ten by this wateh. But I don't like to be here, it is so fine a plaee; WOULD RATHER BE OUTSIDE; I only came in here beeause you wanted me to do so.' I then enquired in what part of the room he was standing; he said, 'I am standing at the table, where I ean see all the company at onee, but I do not see anything to eat on the table.' I then woke him up in this position."

EXPERIMENT TWENTY-FOURTH.

"July 14th, On putting E. W. to sleep this evening, he said, 'They are all gone now; there is no one here; they went away soon after you left me.* There have been some people in this room to-day, moving the things about, but they looked like servants.' At my request he looked into several rooms, and says, 'Here is the young lady I saw before, and the young gentleman too; they are are now in a room by themselves, but it is only a small room; there are many people on the outside, in the passage.' I then told him that there was a garden attaehed to the Palaee; he said, 'I will try to find it.' After a little while, he said, 'I eannot find the way into the garden, *if there is one;* I have been along so many passages and eannot find the way out.' At last he said, 'Oh, here is a large door, perhaps this is the way it is paved inside with white stones, having red veins in them. This is the door, it leads into the garden. Oh, what a large place this is, and so pretty! I shall stop here and look at all these flowers, such as I have not seen before; indeed they all appear to be new. Here is a handsome one, standing on a stalk by itself; this flower is like a large deep eup, of an orange colour, with red stripes up it; it flows off at the edges and has a stiek to support it. I have never seen one like it before, and I do not see another like it in the garden.' 'Here is a seat, I shall stop here.' I then awoke him."

EXPERIMENT TWENTY-FIFTH.

"July 15th. As soon as E. W. had passed into the sleep, he said, 'That young lady has been walking about here to-day, and the gentleman too; there were some ladies walked behind her, and held up her gown, but *I went on before her—where she went I went:* but she did not go to the bottom of the garden. How very smooth the paths are; but *I* do not walk on the paths when by myself, BUT FROM ONE FLOWER TO ANOTHER, ACROSS THE BEDS. The young lady sat down once, on one of the seats; there are many seats about the garden; and when she went baek to the Palace, *I* went in with her; but she did not go in by the door, that *I* eame out of, but went in by a door into a room, and *I* went in with her; and as she went from one room to another, *I went with her;* and then I came back to the garden again, for I like the garden better than I do in-doors; it is so *grand* there.'"

In Experiment Twenty-six the patient gives some further description of the garden, and in

* When he is woke up, he calls that leaving him; and when put to sleep, he calls that coming to him again.

the next experiment, relates a drive which he took with a lady and gentleman of the palace. In the Twenty-eighth, he speaks of other such amusements, and thus describes a thunder-storm which took place on the 19th of July, on the evening of which day he is giving the description.

"There have been many in and out of the palace to day while I have been standing here, but there were not so many came in the afternoon, when it *rained* so much. And *I saw something up high when it rained*, (the lightning) I could not tell what it was—very bright; it shot about in a variety of forms; sometimes it APPEARED TO OPEN, *and spread about in a beautiful manner; I had a good mind to go up and see what it was; when I see it again* I WILL."* He had a great mind to go up and see what it was! If this expression is an invention, and not the spontaneous production of a mesmerised patient, he who invented it is a genius of no common order. But these experiments are full of such unexpected and artless touches. Witness the walking from flower to flower in the palace garden, &c., &c. Further on he gets into the palace kitchen, of which he says, "I suppose this is the kitchen, but I *cannot see any* FIRE. Under the clock is a large open place that looks white and shines, I CAN FEEL IT HOT HERE: oh! this is a fire-place. Now I can see the fire inside of it, but you cannot see any fire on the *outside*. I will now go into the garden."

In the Thirtieth experiment, Monday, July 31, he relates the preparations that had been making for a state ball, and mentions among others who were at that moment arriving, "the old king of Hanover." He concludes by requesting his mesmeriser to leave him, and come again on *Wednesday*, as he had previously directed, for he says, "I want to look at them, but *I cannot look about so well when you are are here as I can when alone*, FOR YOU ASK ME SO MANY QUESTIONS."

EXPERIMENT THIRTY-FIRST.

On being put to sleep August 2, he said,—

"I am glad you are come again, for I have so much to tell you, that it would take me to the middle of next month to tell you all about it. Oh! it was a grand, a splendid sight—so brilliant that you cannot guess, unless you were to see it. I wanted to see you so much, to ask you what that was that a man strangely dressed carried before him, and played upon."

Here follows a humorous description of the Queen's piper, and the "queer instrument" he played upon. He next describes the grand staircase, and adds,—

"Now you must understand, that the grand folks went up these stairs into the room, and there were EIGHT ladies and gentlemen inside to receive them, and when any one came in they called out the name, and *there was such bowing and scraping*; they did like this," (here my patient imitated what he meant,) "and then they went up to the Queen, AND BENDED ONE KNEE, and after that they walked about. When some of the gentlemen came in, they took cards out of their pockets; I suppose they were such as were not known, and I observed some of them to take a card from their waistcoat pocket, as they were walking about, and give it to another in the room; *now I thought to look at one of these cards as he held it in his hand, and I saw a name on it; so when I could not remember any one*, I LOOKED INTO HIS POCKET, AND THEN I COULD SEE WHO HE WAS."

Talk of the Arabian Nights indeed! what could they do more than this? Look into men's pockets to read their names, stand invisible in the midst of a Royal ball, nay follow her Gracious Majesty about like her shadow, even into her deepest retirement! Faith! this Mr. Dann is a most dangerous fellow, and will have to be suppressed by act of Parliament. How are state secrets, or any secrets, to be kept from this mesmerised Paul Pry of a Wisenden, who goes poking about wherever his fancy leads him, or his master directs. We never heard of any magician or genius who had the power of being in two places at once, but here is a sprite that realizes this impossibility most beautifully. Here he is spending weeks at the Palace, flitting about the garden, or driving out with some fair lady or other, or, for aught we know, taking tea with Her Majesty, or playing with the children, or amusing himself in a thousand other delightful ways, and all this time his mortal body with, we suppose, some sort of a soul in it also, is working in Maidstone, at some ordinary occupation, wholly unconscious of the gay life led by the Wisenden of the Palace! Some philosophers tell us that man has two souls. We should not be surprised if it turns out that he has half a dozen. Really we do not know what to say about these experiments. At all events, we advise every one of our readers to go and buy this little book; what we have extracted gives but a faint idea of its curiosities. And we advise all mesmerizers to set their clairvoyant patients to work and see what they have to say about the "blue fire," &c. But above all, let them try this new phase of clairvoyance, and put us out of suspense as soon as possible, for if our secrets are destined to be thus ransacked, we may as well know the worst at once. Perhaps some one will then invent "a patent safety chest," or some other contrivance for keeping papers and secrets out of the reach of these prying spirits. If others confirm these experiments, why then Mr. Dann is immortalised, and Edward Wisenden will be raised to the stars, where he can run after the lightning as often as he pleases.

Mr. Dann further remarks, in reference to the state ball, that some of the descriptions were given *on the same evening* that it took place This therefore could not, by any means, be a case of mental transfer from him to his patient. He did not himself read the newspaper reports till several days afterwards, when he was surprised to find the accuracy of the revelations. Mr. Dann has never been in the Palace, nor his patient ever in London, nor has he even read a description of it. Besides, in his clairvoyant

* At this time there was a great thunderstorm in London.

state, he has no recollection of what is known to him in his natural condition. This is all we can say at present, so now, gentle reader, go and order the book forthwith.

CORRESPONDENCE.

THE LUNGS, A GALVANIC OR NERVO-ELECTRIC BATTERY.

To the Editor of the People's Phrenological Journal.

Dear Sir,

In many of the late numbers of your periodical I observe, that a *recent* (?) discovery has been made relative to the functions of the lungs. In November last, during my sojourn in London, handbills were circulatated of the following description "*a new discovery*," the lungs a galvanic battery. C. B. Keenan, Esq., M. D., will give two lectures at the Parthenium. In which he will prove that the lungs are especially a Galvanic Battery, &c. This bill, had its claim been less startling, would not have attracted my attention.

It is at all times an unpleasant task to show that an individual has been anticipated, by years, in the public advocacy of a doctrine in which he supposes himself the discoverer. Dr. Keenan has only to refer to *printed* works to *discover* that the authors broach the self same ideas, without any modification. In the year 1840, I advanced the doctrine, that the lungs at every inspiration sent electricity to the brain; which having been assimilated by the lungs to subserve the purposes of life, I called the nervo-electric principle or fluid. In fact, this theory, involved two hours' lecture. The same I again advanced in the spring of 1841 in Boston, 1842 in Montreal, Quebec, Toronto; in 1843, the identical words were pronounced in Liverpool, to which a large majority of the medical gentleman will bear witness. Again, I find that a pupil of mine the Rev. J. B. Dodds, in a pamphlet published in January 1843, uses these words at page 16, "we thus perceive that the nervo-vital fluid is manufactured out of electricity taken into the lungs at every inspiration," again at page 20: "Hence, I have clearly proved that the nervo-vital fluid, secreted by the brain is of a *galvanic* nature, and is manufactured from electricity which we breathe into the *lungs* at every inspiration we take."

I am not desirous of making any unnecessary comments on the above. But, it requires no ghost from the grave to convince us that Dr. Keenan has not made *a new discovery*, in stating that the lungs generate nervous power. The same ideas have been advocated long before either of us were born.

Should the parties still persist in the claim to originality, I will, on my visit to London, show you chapter and verse in proof to the contrary.

Yours respectfully,

Robt. H. Collyer, M. D.

Liverpool, January 27, 1844.

To the Editor of the People's Phrenological Journal.

Dear Sir,—I trust the following extract may prove interesting to some of the readers of the "People's Phrenological Journal," and still more so, should some one in possession of the medical details transmit to you the particulars of the case, and the exact situation on the head where the operation was performed; as I feel assured that Phrenology will lose nothing through the additional facts that may be adduced.

I am, Sir,

Yours respectfully

Charles Pembrook.

Birmingham, January 29, 1844.

"A gentleman engaged in the higher department of trade—a good man, an enlightened man, and an affectionate parent—had two sons, who, at the time I begin their history, were respectively of the ages of five and ten; the attachment between them was so remarkable as to be the common topic of conversation among all their friends and acquaintance. The children were incessantly together; and to see them walk round the garden, with the arm of the elder round the neck of the younger, while the other who could not reach to his neck, endeavoured to clasp his waist—with their long auburn hair in the fashion of the day hanging down in ringlets, and (as the elder stooped to kiss his little brother) covering his face—those who had seen them thus occupied, their lovely features beaming with affection, would have said, that nothing on earth could give a more vivid idea of angels. The children, when separated for a few hours only, were miserable; and when the time arrived for sending the elder to school, it was a subject of serious reflection among the parents and friends, whether so intense an affection should be checked or encouraged: the former was decided on, and the elder was sent to a distance. Both children were so exceedingly unhappy, that sleepless nights, loss of appetite, incessant weeping, and rapid wasting of the body, made every one fearful of the consequences of prolonging the absence, and they were brought together again. Those who witnessed the tumultuous joy of their meeting, describe it as inexpressibly affecting; they soon recovered their health and spirits, and their mutual affection seemed, if possible, increased by the temporary separation. The experiment, after awhile, was again made and with similar results; and it was decided never to risk another. An arrangement was now entered into with a schoolmaster to receive both boys, although contrary to the regulations of his establishment, which professed to admit none under ten years of age. The two boys kept themselves almost entirely aloof from the rest; the elder helped the younger in his education—watched him with a kind of parental solicitude—kept a vigilant eye upon the character of the boys who sought his society, and admitted none to intimacy with his brother of whom he did not intirely approve. The slightest hint of his wish sufficed with the younger,

who would almost as soon have contemplated breaking the commandments, as opposing his wishes in the slightest degree. Both made rapid progress in their education, and their parents' hearts were filled with thankfulness for the blessing. In the midst of this happiness, news arrived from the schoolmaster, that, from some unexplained cause, the elder boy had begun to exercise a very unreasonable and tyrannical authority over the younger; that he had been repeatedly punished for it, but although he always promised amendment, and could assign no cause (reasonble or unreasonable) for his conduct, he soon relapsed into his usual habits, and the schoolmaster requested to know what was to be done. The father immediately sent for both boys, and entered upon a lengthened investigation. The little one, who was almost broken hearted, exclaimed, "He might beat me every day, if he would but love me; but he hates me, and I shall never be happy again." The elder could assign no reason for his animosity and ill-treatment; and the father, after many remonstrances, thought it right to infiict on him very severe corporeal chastisement, and confined him to his room for some days, with nothing but bread and water. The lad, on his liberation, gave solemn promises of altered conduct, but showed little affection for his brother, although the latter used a thousand innocent stratagems to inspire him with tenderness. They returned to school. In a few days similar scenes, and worse, occurred—the boy was again and again punished by the master—again and again promised amendment, but in vain, and he was at last taken away from school by his father. A repetition of severe punishment—long incarceration, and a rejection by all his relatives, had no effect in changing his disposition; his dislike to his brother became fixed animosity, and from animosity degenerated into the most deadly hatred; he made an attempt on the child's life, and if he saw him pass an open door, would throw the carving knife at him with all the fury of a maniac. The family now resorted to medical advice, and years passed in hopeless endeavours to remove a disposition obviously depending on a diseased brain. Had they taken this step earlier, these floggings and imprisonments would have been spared, as well as the heart sickening remorse of the father. Still the boy was not insane; on every topic but one he was reasonable, but torpid; it was only at the sight of his brother, or the sound of his name, that he was roused to madness. The youth now advanced towards manhood. When about the age of fifteen, he was taken with a violent but platonic passion for a lady more than forty years of age, and the mother of five children, the eldest older than himself. His paroxysms of fury now became frightful; he made several attempts to destroy himself; but, in the very torrent and whirlwind of his rage, if this lady would allow him to sit down at her feet and lay his hand upon her knee, he would burst into tears, go off into a sound sleep, wake up perfectly calm and composed, and looking up into her face with lack-lustre eye, would say, 'Pity me—I can't help it.' Soon after this he began to squint, and was rapidly passing on into hopeless idiotcy, when he was once more taken to Mr. Cline, a surgeon long since dead, whose instinctive sagacity I have never seen equalled but by one man—the late Dr. Babington. After another attentive examination of the skull, which had been shaved for the purpose, Mr. Cline said, 'Here is an almost imperceptible depression, it would not justify us in doing anything but in a case entirely hopeles; here, however, we can certainly do no harm; and although there is scarcely a chance of benefit, let us make the attempt.' A day was fixed for the operation; a circular piece of the skull was removed by the trephine, and on examination, there was found to be a specula of bone growing from under its surface and piercing the brain! Here was the hatred to his brother, and the love to Mrs. M. He soon recovered, became strongly attached to his brother, and felt no other sentiment towards Mrs. M. than gratitude for the kindness which she had shown him in his illness, and of which he retained but a faint remembrance.

"Here, reader, here is a matter for reflection—for the philosopher, the legislator, the executor of jurisprudence. The thoughts to which it gives rise are overwhelming. Had this poor wretch in one of his mad paroxysms (before a medical man had been called in), killed his brother, how would the rabble crowd at the Old Bailey have rejoiced at his execution; and how cordially would the good, the wise, the benevolent, and religious have echoed their sentiment!

"And now, reader, listen to the explanation; for it is the most frightful of all the circumstances accompanying this extraordinary case—the most extraordinary, perhaps, on record, and of which I am sorry it is not in my power to give the medical details; for it occurred before I understood the structure of the brain—that mysterious organ, or rather organs, each a perfect whole—each capable of a synchronous, a distinct and opposing volition; and this proposition, however a medical man reading my paper may scout the idea, I pronounce to be the essence of insanity, and if God spare my life, I will endeavour to prove it in a work strictly professional.

"But now for the explanation. The disease which led to these terrible results, took its rise from a blow on the head with the end of a round ruler, in one of the gentle reprimands then so common with schoolmasters. The sharp edge broke through both tables of the skull, and set up the process of ossification from under the surface!"

[We regret that our correspondent has not told us where this extract is taken from.]—Ed.

To the Editor of the People's Phrenological Journal.

Sir,—Being a regular reader of your valuable People's Phrenological Journal, I hope you will excuse the liberty I now take of communicating to you (for the first time) an account of the ex-

traction of a tooth, while in the mesmeric sleep, without the patient experiencing any pain.

The case in question, is that of a stout healthy young woman, about nineteen years of age, and who (on the 27th of January, 1844) came to the house of a neighbour of mine, while I was trying to mesmerise another person for fits; when she came into the house, some one asked her if she would be mesmerised, when she said it would be of little use to try her, for she was quite confident that no one could ever put her in the mesmeric sleep, but at length she consented, and I of course made a trial, and in about half an hour she was nicely composed in a mesmeric sleep, in which state I allowed her to remain for a few minutes undisturbed, (and as she had previously been so confident that she could not be put to sleep,) I then asked the mistress of the house to furnish me with some old clothes, viz, an old torn cap, and bonnet, and part of a printed gown, with which I adorned her while asleep. I then tried to excite a few of the phrenological organs, which manifested themselves in a very striking manner. I allowed her to sleep nearly an hour, and then awoke her while standing opposite to a large looking glass, in the house; and you may easily imagine her great astonishment at finding herself adorned in the manner described. She positively declared that she had been unconscious of any thing that had been done to her, or any thing that had passed while asleep. On Sunday evening, February 4th, she was mesmerised again, merely to gratify the curiosity of some incredible spectators. When she was awoke, she said she was much troubled with a decayed tooth, and the next time she was mesmerised she would have the tooth extracted, she knowing that I was in the habit of extracting teeth, and that I had performed a similar operation on another person, while asleep. On Wednesday night, the 7th ultimo, she came to my house to have her tooth drawn, while in the mesmeric sleep. A number of persons attended on purpose to witness the experiment, she was put to sleep in about ten minutes, and remained so about fifteen minutes, whilst I prepared the instruments, &c. I then set to work, one of the company held the candle, so that I, and the rest who were present, could have a fair opportunity of watching her movements during the operation, but to the great astonishment of all present, not the least movement in her features, or any other part of her body, was visible to the most discerning and scrutinising eye. The tooth was situated at the far end of the upper jaw, on the right side of her mouth. I allowed her to sleep about a quarter of an hour after the operation, and then awoke her; when she solemnly declared that she had never felt any pain, neither did she know how long the tooth had been drawn, and if required she was willing to give testimony to the fact upon her oath.

For the accuracy of the above statement, reference may be made to Mr. Thomas Wild, Coal Merchant, and Mr. Ephraim Moss, Stationer, (who held the candle while the tooth was extracted,) both living near to Carr Hill, Saddleworth, Yorkshire.

N. B.—I have also a few other experiments and cures performed with Mesmerism, which I intend shortly to communicate to you. I would also just remark that I have written to one Mr. Edward Preston, of Oldham, mentioned in your Journal for the month of January last; repecting what he calls an incurable complaint, under which he is now labouring. He has kindly returned me an answer, containing the particulars of my enquiry, viz, the nature of his complaint, how long he had been troubled with it, and also his own age; and from his statement, although a complete stranger to me, I am of opinion, from the little experience I have had in Mesmerism, that if Mr. Preston's circumstances are such as to allow him to be near some person well experienced in Mesmerism as a curative, so that he could be attended to every day for a few weeks or a month, it is my conviction that his complaint would be very much alleviated, if not entirely cured. Although it has bid defiance to the best medical treatment he has been able to procure.

Sir,—If the above statements be considered by you worthy of a place in your valuable and much esteemed People's Phrenological Journal, they are at your service, I must now take leave for the present, and remain

Your most obedient and humble servant

JOHN JONES.

Carr Hill, Saddleworth, Yorkshire.
Feb. 5th, 1844.

To the Editor of the People's Phrenological Journal.

SIR,—I beg I may be allowed to say a few words through the medium of your valuable Journal in answer to some remarks contained in page 203 of of the Journal, new series, by Mr. R. Jones. He says that he has to regret that I, or some other of your intelligent correspondents, do not see the necessity of first settling the question of the possibility or impossibility of determining the size of an organ, by measurement of any kind. Now it appears to me that the upper parts of an edifice were never built before the lower, and that the builder does not perform any of his work without tools, hence before the thing required can be accomplished the workman must be provided, and that if the tools are not good, the work will not be well done, from these considerations I have been induced to try to furnish them with that requisite; he further says that my introduction of astronomical terms is very apposite; in this, both he and the editor are under a mistake, for I did not consider the words longitude and latitude, in an astronomical sense, but the way that I used them was in a geographical sense, comparing the head of a man to the earth. Before writing the next passage, he ought to have taken some note of what the present editor, the former editor, Mr. Merryweather, and Dr. Collyer have said on the excitation of the organs by Mesmerism, for they have shown abundant reasons why mesmeric organs cannot be depended on; but admitting that there were millions of organs discovered, as he supposes, for he compares them to the stars, and I have been given to understand that there are about 3000 stars

visible to the naked eye, and if he takes in the telescopic there are millions, for the better the telescope the more stars become visible; on this consideration away with Phrenology, it is perfectly useless, for where is the able phrenologist that could possibly manipulate more than one subject in the course of a long life.

Again he says: "But, after all, discovering the exact longitude and latitude of an organ (admitting that four cardinal points may be discovered to correspond in all heads alike &c.") What he speaks of here, does not appear to me to be required, all that is required is two poles, which are given in the two ears, and one point to commence to count the longitudes from, as the longitudes on the earth are counted by the English from the meridian of Greenwich, so in this case I have proposed the tentorium, but in this as on the earth each operator may begin where he thinks most convenient.

And for the extent of the powers of my instrument, (Mr. Jones has entirely overlooked it, the principle consideration) if we suppose the measurements are taken at the intersections, at each degree only of longitude and latitude in the organization, we shall then have 200X180 ---36,000 points on the cranium, and as the instrument may be removed to take the features that will take about 70 degrees more of longitude, thus making 270X180 ---48,600 points exact and accurate. This I think will be sufficient to carve a bust true and accurate. By a record taken in this form, (will any other instrument do so much?) a good hand at drawing and perspective may delineate both the features and organization so as to be a true portrait when the colours are mentioned.

Mr. Jones further says, whatever Mr. Preston can afford, he calculates largely on what others can. I think I do not calculate so very largely, for in my travels I have actually seen gentlemen squandering thousands on gew-gaws, and trifles, hence it is certainly not so strange to expect that they might afford a pound or two for a useful purpose.

He likewise says that I said of my own head, Philoprogenitiveness very large; Concentrativeness adjoining to Philoprogenitiveness large; from which as it proceeds upwards it diminishes rapidly to the organ of Self-esteem. I have no doubt but the editor could easily solve this seeming parodox, without my help, but as he has not done so, I must strive to do it. In the former letter I had first written, (but I thought it useless, and therefore I wrote the letter over again and left it out,) the lower part of Self-esteem small, the upper part adjoining to Firmness large, and Firmness large; from which I draw the conclusion that the organ of Self-esteem, contains two kinds of Self-esteem, viz, the lower part Pride, vulgarly so called, and the upper part, the Self esteem of abilities, and I believe what makes it more active is, that all my abilities are self-acquired, without any school education. If Mr. Jones and other mesmerisers would examine this organ to see if it has not these two powers, it might be a benefit to Phrenology.

Yours very respectfully

EDWARD PRESTON.

Oldham,

February 6th, 1844.

THE RATIONALE OF ANIMAL MAGNETISM.

Born with us, there is a combination of magnetic power, or, to speak more correctly, a magnetic RESERVOIR, (since the agent in Animal Magnetism is at length ascertained to be a FLUID,) which, under circumstances favourable to its development, is capable of being called into action at the will of the operator, and of being directed to the patient at his pleasure. Long ago it was discovered that an effluvia is ever emanating from all human bodies to the distance of from nine to twelve feet, nay, in some instances, more, FORMING A SURROUNDING ATMOSPHERE OF ITS OWN TO EACH INDIVIDUAL, AND THIS IS THE MEDIUM OF COMMUNICATION IN ANIMAL MAGNETISM—THE CONNECTING LINK BETWEEN THE OPERATOR AND THE PATIENT. No sooner does the magnetic current, at first emanating from the former, and propelled by him towards the latter, enter the confines of the *patient's* atmosphere, then it is instantly felt by *him*, and calling into act the magnetic energy he himself possessed, and which is derived from that magnetic *reservoir* inherent within us, the *two-fold* magnetic currents blending in the *united* personal atmospheres both of the operator and of the patient; THE PATIENT becomes thereby subjected to the mesmeric trance, and occasionally *clairvoyance* ensues. Pay attention to this.

ANSWER TO CORRESPONDENT.

J. W.—The letter of our correspondent shall be attended to.

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A COMPLETE SYSTEM OF PHRENOLOGY.

(*Concluded*).

INCONGRUITY. (WIT.)

THIS organ, which is usually marked 20, is situated in the lateral portion of the superior part of the forehead, and when large, it gives a breadth and squareness to this region, such as is observed in the heads of Sterne, Franklin, Cullen, Voltaire, Swift, &c. &c. It is above Tone, below Wonder, and in front of the lower portion of Ideality. No faculty has caused more discussion than this. Gall and Spurzheim considered it as a feeling of the ludicrous, which, in combination with other powers, led to satire, laughter, humour, &c. The situation of the organ in some measure proves it to be an intellectual faculty, but the primitive function is most difficult to arrive at. Wit (its present name) being indefinable, according to the established notions of the metaphysicians, every writer almost having his own theory to explain what wit is, some making it to consist in similarity, others in dissimilarity. Without entering into this discussion, we shall merely say that this faculty appears to us to perceive incongruity or dissimilitude exactly within the same sphere of ideas, sentiments, &c., as Comparison or Congruity perceive likeness or similitude. Thus we see there are the organs of simple perception, those of relation. One for likeness, and this one, now under consideration, pointing out the variations, and so, as it were, checking a too extensive generalization and classification, it is the analytic faculty. When highly excited by detecting extreme Incongruity in positive existencies, in two ideas, or between an idea and a sentiment, and the way in which they are manifested, laughter is the natural language of it, as crying is that of grief or sorrow when carried beyond a certain pitch, or jumping is expressive of ecstatic joy. From this sketch it will be seen how important a faculty this is in all philosophical or scientific investigations. Without this organ is well-trained, or large, individuals under the influence of their Comparison will mistake Coincidence for Causality, Analogy for Proof, &c. Its abuse leads to saying severe things or exposing to ridicule the weakness of others.

CAUSALITY.

This organ, which is considered as the crowning faculty of human reason, is numbered 35, and is situated between the last considered organ and Comparison, over the centre of the eye-brow above Time; it is the point in the frontal bone where ossification commences, and when well developed gives a fullness and breadth to this region of the forehead. It has been called the metaphysical faculty, but this is a metaphysical definition. A great deal has been written to explain what a cause is, and after all the volumes of metaphysical writers have been pondered over, and all the philosophers of this and all other ages have been listened to and read, every body finds out that all are agreed in one thing—that it can never be found out what they have been taking years in trying to discover—that is, the cause of any thing. Every thing human faculties can comprehend, is an effect resulting from something which human reason cannot fathom, but still all seem agreed to keep writing and talking about causes;

but if we understand the word in this limited sense, this is as good as any other. What, then, is the function of this faculty to perceive? The relation existing between two or more states or conditions of material objects, ideas or sentiments, and the correct perception of this class of phenomena, depends upon the development and training of this power, and constitutes one marked superiority of man over brutes, but not to the extent that is generally supposed, for many animals, dogs, horses, elephants, birds, &c. observe these relations correctly, and to a considerable extent; while we have little evidence of animals analysing or possessing the feelings of Wonder or Ideality. But, indeed, there has been an idolatry of what has been called human reason, as blind as of any superstitious faith whatever.

There are, fortunately, abundance of examples of this organ largely developed. It is generally larger in the German than the French head, and in the Scotch than in the Irish, and the natural intellect corresponds with the development of the organ. Dr. Gall had very large organs of Causality, Individuality, and Comparison, and how correctly did he observe and compare facts, and observe their *relation* to certain physical conditions, &c.—in usual language their cause. It is large in Milton, Tasso, Spurzheim, Elliotson, Bacon, Cobbett, &c. In the poet Wordsworth it is very large, and his poetry, like many other people's ideas, is much mystified, by following too much into what they call Causation. This faculty shows the true relation between things, and modifies the activity of all the feelings. This enables us to explain many apparent anamolies in human character. A man, for instance, has large veneration; he does not conform to the established religion or customs of the place he resides in, and here, says the eager opponent of Phrenology, here is a man with large Veneration who has no religion. His Causality cannot perceive the relation between true religion and the particular forms or notions any other men may have established, and he cannot more than others venerate what he does not approve. We have now only to consider the expressive faculty, which is the power by which we communicate to others the thoughts, feelings, and ideas, which spring spontaneously from the internal activity of the powers, or are the result of the excited action of any of the feelings, sentiments, or intellectual faculties.

LANGUAGE.

The effect of this organ being large, is to give great prominence to the eyes. Dr. Gall's observations in regard to this peculiarity of the eyes, accompanying in his school-fellows strong verbal memory, led to the discovery of the mental powers being in connection with the condition of the brain.

The convolution of the brain, designated as the organ of Language, lies on the posterior part of the orbitar plate, pressing it, and consequently the eye more or less forward and downward, in proportion to its development. When the organ is small, the eye appears sunk in the forehead; but in estimating the size from the appearance of the eye, the size of the perceptive faculties, as well as the projection of the cheek-bone, must be taken into consideration, or very erroneous estimates may be formed.

The primitive function of this organ is not easy to determine. Some assert it is merely the perception and memory of arbitrary signs, that is, of words; while others maintain that there cannot be a primitive power to cognize artificial signs. Ideas, there can be no doubt, have their source in the activity of the cerebral parts. As far as we are capable of judging, we should say the expression of these ideas is the faculty of this organ. Hence our denomination the expressive faculty.

The indefinitiveness of terms, so much lamented by most metaphysicians, results from the organizations varying in men. Hence the same word conveys different ideas, according to the organ it strikes upon; and till men's minds can be assimilated, it must ever be the case with those terms expressive of feelings and sentiments.

This organ is very large in Dean Swift, Pope, Dr. Johnson, Voltaire, Gibbon, Humboldt, &c. They all have a great power of expressing their ideas, but the words they use, as well as their notions, results from the other portions of their organization.

When small, an individual has great difficulty in expressing himself clearly—he will neither write nor speak fluently, however great his general acquirements. On the contrary, when the organ is large, and backed by an active temperament, &c., words will be poured forth, whether they express *ideas* or not. Individuals of this class, talk for the pleasure of hearing themselves.

The size of this organ is but one, and not the most important condition necessary for the acquirement of languages; all the intellectual faculties, and even the feelings and sentiments, contribute to the acquisition of theories of language. The mere verbal memory, as far as it goes, gives facility for remembering words and phrases, but not for understanding the spirit of a language.

There are many well proved cases of this organ being diseased, after fits of apoplexy, some individuals have been unable to remember their own names, or to call objects by their proper names, although remembering persons and things. In excitement of this organ by disease, cases are reported of individuals who have spoken languages fluently which they have only heard in their infancy, and of which, in their healthy state, they had no recollection.

Whether the memory of proper names is a portion of the function of this organ, or whether it is subdivided, is a question of much interest. From the cases reported in which this power has been affected by disease, there are facts to justify the notion, that different classes of words are in connection with different portions of the organ under consideration.

We have now gone through the whole of the received organs. The newly discovered ones of mesmerists must be severely tested, and established by a much firmer array of facts than they are at present, before being admitted into a system of Phrenology.

THE PEOPLE'S PHRENOLOGICAL JOURNAL.

It is not without some regret that we have to announce to our readers, that, with the present number, terminates the existence of the "People's Phrenological Journal." Were this an absolute extinction, we should announce it with very great regret indeed, but as it is only one of those instances of literary metempsychosis so common in these days, we have fortunately no cause for much sorrow on the occasion. Our work dies, but its spirit we trust will soon re-appear in a new form, and in a higher range of existence. In other words, it has been determined to substitute for the present publication, a *Monthly Journal*. The idea of this change was in the first instance, forced upon us. The sale of the work has not been commensurate with the efforts made to render it deserving of success. The very considerable and gratuitous increase in its size, and the great additional time and labour bestowed upon it, have not brought us any increase of subscribers; nay, since its management has been in our hands, the sale has actually *decreased*, and that sufficiently to render it impossible for us to attribute it to accidental circumstances. Nor does there seem much likelihood of a reaction without the expenditure of more money, labour, time, and patience than it is convenient to risk. Under these circumstances there appears no reasonable alternative but some such change as we have determined on, or a total extinction. For the latter we can see no necessity, and have no inclination, The cause is one which we have all much at heart, and we see no reason for doubting that a work of the character we propose may be carried on with advantage to science, and without injury to ourselves.

Those who have taken an interest in our labours thus far, have been pleased to express their surprise at this want of success. Among the reasons which their partiality has suggested as accounting for it, two may be mentioned. It has been said that much of our matter has been of too grave and metaphysical a cast to suit a certain portion of our readers, and that many phrenologists have probably been prevented from becoming readers, in conseqnence of mistaking the real character of the work; its title, size, price, &c. being calculated to give rise to the impression that it must be of too light and popular a nature to offer them anything of value with which they were not already familiar. So that the loss sustained on the one hand has not been counterbalanced by such gain as, under a better arrangement, we might naturally have expected.

As the subject we have in view is not so much to make Phrenology attractive to a great number of persons, as to labour towards its advancement as a science, it is impossible that we can materially alter the character of our own writings, or give a preference, in what we select, to the light and amusing over the more serious and valuable. Our only alternative, therefore, is to address our work specially to those who attend to Phrenology for the sake of its higher advantages, rather than for the purposes of a casual amusement. Indeed, a merely popular work in the present imperfect state of the science would not be simply useless, it would be mischievous. Before we can announce the truths of Phrenology, in a pleasing form, we must discover what they are. To treat, in what is called a light, amusing, and intelligible manner, of obscure and contested points, is, generally speaking, to write nonsense.

In reviewing, therefore, our whole position, in connection with the experience that has now been acquired, all parties have been unanimous in recommending a monthly publication. It seems certain, although there are at present vast numbers of believers, and partial believers, in Phrenology, that yet those who take a strong and continuous interest in it are much too few to keep up a sufficient excitement for a weekly journal, or to repay the great extra expense attendant on it. And it is no less clear that the number of those disposed to write for such a work, and whose productions are deserving of publication, is also far too limited. Thus the zealous must be too much taxed, or inferiority must be tolerated, or recourse be had to matter already published. Then again the limits of a weekly work constantly entail the necessity of abridging or subdividing valuable papers whose argument may require them to be read continuously. This is a serious and inevitable inconvenience. Besides, it carries with it another not less so. It perpetually offers the temptation for hasty publi-

cation, and often, indeed, renders it inevitable. We have ourselves suffered not a little from this inconvenience. In fact, the uninterrupted round of composition, upon serious and difficult points which has been entailed, as well by our interest in our subject, and in our work, as by the limitted number of our contributors, and the excitement of passing events, has been, on the whole, extremely fatiguing.

Another evil entailed by the necessity of supplying, in a very limited time, a certain quantity matter, is that we have often been obliged of to take up, not the subject that might have been most appropriate at the moment, but that on which our ideas happened to be freshest, and on which, consequently, we were most likely to write with ease and rapidity. This has occasionally broken the continuity of some of our articles, to a much greater degree than we could have wished, while, in some instances, it has led us into procrastination, that may have seemed intentional omissions. One case we must specify. A review of each number of our contemporaries, the "Quarterly Phrenological Journal," and the "Zoist," we look upon as one of the most obvious of our minor duties, and yet we have suffered the late number of each of these works to pass unnoticed. The fact is, both contained many things which interested us, and we had determined to review them at considerable length, but circumstances interfered, while the matter was fresh in our minds, and afterwards, our leisure was insufficient to enable us to do justice to a subject that no longer offered the excitement of novelty. From these remarks our readers will readily perceive how many serious inconveniences may be avoided by the change which we contemplate, nor will they be surprised by the announcement that this change will enable us to present them with a work every way more deserving of their notice than the present. We must now say something upon the peculiar character of this our proposed undertaking.

Our readers are already aware that we have given much prominence to a subject which has hitherto received little or no attention from the generality of phrenologists, but which we regard as of the very highest consequence, we mean the science of Ethnology. This science will form a distinguishing feature of our new work. To say that Phrenology and Ethnology are intimately connected is to say but little. They are, in fact, in the most important points, one and the same science. The scope of Ethnology is indeed immense. It is the natural history of humanity, in its various races. It is the history of the migrations, and conflicts, and blendings of these races. The history of civilization in its many commencements, and consummations, and destructions, and renovations. In a word, it is the geology of the moral world. Not merely a collection of facts, but a science that gives the reasons of facts, enabling us to clear up what is doubtful, to recover what is lost, and even, in many cases, to anticipate what is future. But yet, however vast its range, however numerous the branches of knowledge that minister to it, when we consider that throughout all the varieties, and changes, and actions of humanity, the *mind* is everything, and moreover reflect that the body, even to its minutest peculiarities, is the exact mirror of the mind, it will at once be apparent that this great science is merely an *enlarged Phrenology*. Neither must it be imagined that these extended views are matters of mere luxury to the phrenologist, matter which he may take up or neglect at pleasure. Metaphysical Phrenology may indeed be, to a considerable extent, independent of them, but practical Phrenology will never be in a state to be fully depended on, until the science of races approximates to perfection. If these views be just, it is evident that some journal which shall take a constant and enthusiastic interest in ethnological Phrenology is a great disideratum at the present juncture. We shall spare no pains to render the work we propose all that, under existing circumstances, phrenologists can reasonably expect it to be, in this particular, and possibly more than they do expect. In selecting a title, we have had especial reference to this leading feature, and have therefore proposed to name the work—"THE ETHNO-PHRENOLOGIST."

The subject of *Mesmerism* is also so intimately allied to Phrenology that we shall continue to give to it the same attention which it has hitherto received from us, and shall endeavour to put our readers regularly in possession of every improvement or discovery of any interest that is made in it.

Those who have taken an interest in our individual views of Phrenology must have often felt more tantalized than benefitted, by the few glimpses which we have been able to afford of them, in the papers we have contributed to this journal. Hitherto, we have been employed rather in subverting, than in establishing, in exposing errors, rather than in supplying deficiencies. This is certainly not the course we would have preferred, though it has its advan-

tages but it was the only one that, under existing circumstances was open to us. We were by no means prepared for giving a complete exposition of our system, and much might be lost, while nothing could be gained by partial revelations. Besides, whatever discoveries we may have fancied we had made, we have always seen so much beyond that was undiscovered, that we have always felt anxious to defer the period of a full announcement of our novel, and in many repects startling positions. We cannot say that we have had the least cause for regreting this delay thus far. We should certainly persevere in it much longer, were it not for the inconveniences to which we have alluded. For some time past, however, our views have been gradually approximating to such a state of completeness as will allow us to bring them forward with less annoyance than we should heretofore have felt, and the circumstances of our new work afford a better opportunity of laying them before phrenologists, with sufficient continuity, than we have hitherto had. We propose then to commence this work with the first part of "The Elements of a new System of Phrenology," based upon the discoveries of the illustrious founders of the science Gall and Spurzheim, but differing considerably in its philosophy, and in some degree in its practical applications also from their systems. We expect to complete our task in about six parts, which will appear in the first six numbers of the Journal. We shall, of course, have to write with much brevity, but by being able to present the whole subject in connection, and by the exact classifications and arrangements which we shall endeavour to make, we trust that, within this short space, we shall be able, not only to give a perfectly clear exposition of our views, but such proof also as will enable our readers easily to form a just estimate of their truth or fallacy. This system will at all events form a very curious feature of the early numbers of the journal, whether it prove a valuable feature time alone will tell. Should we be so fortunate as to accomplish this task successfully, we trust to be then prepared to develope, in another series of papers "The Elements of the Science of Ethnology." We have thus cut out for oursevles a good year's work.

But our readers will not be confined to *our* novelties. We are happy to announce to them that Mr. Deseret, who also can "a tale unfold" in phrenological discovery, will make our journal the medium of laying before phrenologists *his* system, which, we understand, differs greatly, in many respects, from that at present recognized. He has promised a complete synopsis of his views for our first number, to be succeeded by a fuller discussion of particular points. Some of our readers will probably be startled by this threatened inundation of novelties. But they need not be so. All this shews that Phrenology is alive and fully awake at last, and indeed it is high time for it to have started from its twenty-year's slumber. It is this clash of opinions, and this multiplicity of independent thinkers, that alone can bring any science to perfection. We expect also to present our readers with valuable contributions from several other quarters, and of course we shall make a much more careful selection of matter than was possible, or perhaps even desirable, in the present work. We trust it is unnecessary for us to add, that the "Ethno-Phrenologist" will ever be conducted with the same fairness, condour, liberality, and independence, which has always marked the course of the "Peoples' Phrenological Journal."

The price of the "Ethno-Phrenologist" will be *one Shilling*, a slight increase upon that of the monthly parts of the present work. It will contain four sheets of demy or 64 pages, of the same size and type as the "Quarterly Phrenological Journal," and the "Zoist." Circumstances do not warrant us in offering a very cheap periodical, but when compared with others of a similar class, this will not be deemed dear. For the price that is charged for our contemporaries, viz., half-a-crown, we shall give three sheets, or 48 pages more than the "Zoist," and nearly four sheets more than the Journal. This will at least fully keep up the proportion, as to quantity and price, which a monthly may be expected to bear to a quarterly. Our first number will be published on the 1*st of April next.* Communications intended for it must be sent to us before the 14*th of March*, addressed to the Editor of the "Ethno-Phrenologist, Mr. Berger's, Holywell Street."

Thus, then, terminates our first experiment. If its success has not equalled our expectations, we have at least strenuously endeavoured to deserve success. In closing our labours, and offering our thanks to those who have journeyed with us, and sympathised with us thus far, it is impossible not to feel some regret, for all parting is sorrowful, but this regret is far more than counterbalanced by the anticipations and enthusiasm naturally arising from entering a more congenial sphere, and one also of higher utility.

[The following remarks were in type before we were aware that we should be so soon favoured with a complete exposition of Mr. Deseret's views. As both our own and his will be shortly before our readers, we think it useless to continue the argument further on the present occasion. Any observations we may have to make will come more appropriately when we see the exact scope of his opinions. We have, therefore, abruptly terminated the article.]

After having examined Mr. Deseret's positions so often, and with so much anxiety to ascertain his meaning, with scrupulous exactness, we do not feel disposed to blame ourselves for the want of success which, it now appears, has attended our efforts. Had we to trace out his meaning through the mazes of a long article, the case might be different, but such has not been our task. His meaning has been given in a single sentence, drawn up in the form of a fundamental proposition, and announced as such. This proposition has been variously expressed, and variously illustrated, throughout his three papers; if after all this it has been misunderstood by persons sufficiently well acquainted with the subject, and sufficiently accustomed to the unravelling of metaphysical subtleties, we think it must be allowed that the presumption is that it has been very inaccurately worded. Fundamental positions ought to be so expressed that it should be impossible for careful reasoners acquainted with the subject to misunderstand them. If they are not, endless and useless discussions must be the consequence. We have given what appeared to us, and what still appears to us, the obvious meaning of this proposition, a meaning sanctioned by all that he has said upon the subject, in his former articles. We certainly should have studied the matter very long indeed before we could have arrived at the view of it which is now presented to us. Let our readers judge.

Mr. Deseret has asserted in a great variety of forms, "that the organ called Language possesses the function of imparting outwardly the natural expression of the various faculties with which we are endowed, and likewise of recognising this expression in others;" that without this organ there could be no natural language of any kind, no external manifestation whatever of thought or feeling. Is it not the obvious meaning of such passages that it is this organ which produces, which creates natural language? If this was not meant, why choose such strong expressions, why not qualify them, or explain them? We do not see how we could have interpreted them otherwise than we have done.

We are next told that the real function of the organ is to perceive "the relations of *sign*—the relations between our perceptions, emotions, and reflections, and their external manifestations." But how this perception is to confer upon us the power of imparting outwardly the natural language of all our feelings we cannot conceive. It cannot, phrenologically speaking, enable us even to perceive that language *when manifested*. To perceive a *relation* between two things, and to perceive the things themselves are very different processes. We may perceive two things between which there exists a certain relation and yet not be able to perceive that relation, and, according to Mr. Deseret's views, an organ may perceive relations and yet not be able to perceive the object between which the relations exist. Thus he holds that Causality perceives relations of *dependence* between objects which it is the business of the "perceptive" faculties to perceive; and that Comparison does the same with relations of *resemblance*. His organ then which takes cognizance of relations of *sign* must be in the same predicament. It does not perceive any particular object in nature, but only a particular relation between objects. It is in fact one of the higher and not one of the lower organs of intellect. Its function, as here expressed, is in every way analogous to those attributed to the reflective faculties. For ourselves we do not pretend to understand anything at all about this whole doctrine of relations, as connected with Phrenology. We used to think that we could see our way through some portions of it, but the more we have studied the matter the less are we satisfied. However we must hold those who do maintain it within the legitimate bounds of their own propositions and statements. We have already clearly shown that no one organ can perceive natural language, since this consists of a vast variety of bodily movements, and changes, variations of form, size, position, colour, sound, &c. The matter indeed is self-evident to those who admit the fundamental truths of Phrenology. If such be the case, what is the meaning of telling us that this organ has the faculty of producing, or "imparting outwardly," natural language, and likewise recognising it in others, when it does not recognize it? When it is the organs of Form, Size, Colour, Sound, &c. that "recognise" it, and this organ which recognises its meaning only. In other words every atom of this language is perceived by the organs alluded to, while this one merely perceives that there

is a connection between it and internal feeling —that it exists as a consequence of internal feeling. Granting then that natural language would have no *meaning* without this organ, it by no means follows that it would have no *existence* without it. On the contrary it follows that it *must* have existed anteriorly to the action of the organ which perceives its meaning. Surely no organ can perceive a relation between a certain sign and the thing signified till both of these have come into existence. We believe there are no organs for perceiving *nonentities*. It is clear then, as we have repeatedly asserted, that it cannot be this organ which *produces* natural language. We may now proceed a step farther in the matter.

We are next told that it is this organ which gives us the idea of externality—that without it we should know nothing of an external world. Now surely to perceive that one thing is the sign of another, is not necessarily to perceive that one of these things is external, and the other internal. These letters which we are now tracing are the signs of certain sounds, and yet both are external. Many of our thoughts are the signs of our feelings, and yet both are *internal*. The functions, if either of them is to be called a function in the phrenological sense of the word, are quite distinct. Externality and sign are not one and the same idea, nor are they the necessary consequences the one of the other. Besides it is quite enough for an organ to have to attend to its own object without having to attend to its consequences. But upon what authority does Mr. Deseret assert that it is not from the organs of the external senses generally, but from this one particular organ that we derive our ideas of external existence. He has not furnished us with a particle of evidence. Why then should phrenologists give up that opinion which they hold in common with almost all mankind, for a mere unsupported hypothesis, having nothing which they can see to recommend it? For our own parts, we assert that the idea of externality is necessarily involved in the action of the external senses. Or to speak accurately, that the function of the external senses is to perceive external things. When, for instance, a child touches a heated body, and instinctively draws back his hand, what is his primary consciousness? Why that there is *something* in that place which pains him, and he consequently shrinks from that *something*, and will not again put his hand in that place. He is, in other words, conscious that a *something*, which is not himself, that is to say, which is external to himself, has just been in contact with him, and has pained him, and, therefore, he keeps away from it. There may be in all this a very complex mental process, but it seems to us quite clear that the first links in the chain are, first, the consciousness of there being external to us a body of some sort, and second, the consciousness that that body burns us. These perceptions are simultaneous, immediate, and anterior to reflection. They depend upon two distinct portions of the organization, but the idea of externality is necessarily involved in both. The matter may be made still more clear, however, by confining our attention to one of them. For instance, when we place our hand upon any object, what is our very first consciousness in regard to it? Is it not that there is *something at the ends of our fingers?* The ends of our fingers are surely external to our minds, and the object is external to the ends of our fingers. Thus, whenever the sensation of contact exists, we are conscious that *something* is touching some particular portion of the surface of the body. We see no special difficulty in this matter, nor any reasonable explanation, but that which we have given. This, besides, is the view which all men, some philosophers excepted, take, and ever have taken of it. When then philosophers chose to assert that which is contrary to the universal belief of mankind, they ought at least to be well provided with evidence in favour of their opinions.

INTELLIGENCE.

THIRD QUARTERLY REPORT OF THE COMMITTEE OF THE LIVERPOOL PHRENOLOGICAL SOCIETY.

In presenting the third quarterly report, your committee feel great pleasure in directing your attention to the steady progress the society is now making, both in regard to numbers, and the means of carrying out the objects we have in view.

Numerous have been the difficulties we have had to contend against, and many the disadvantages we have laboured under, but these are gradually giving ground, and our prospects of future success are very promising.

The study of Phrenology will soon become general amongst the thinking class, for the prejudices which have so long hindered its reception are being removed, and bigotry is fast tottering to its fall. The spirit of free inquiry has

gone abroad; and the laudable desire becomes engendered in the human mind—To know itself. These are signs of good things to come!

Time is daily unfolding some new mental phenomenon, the cause of which is far beyond our ken; but though our ignorance here is complete, it ought to stimulate us to study more closely, to think more profoundly on the facts themselves. By uniting our individual knowledge, by communicating our individual experience, in short by making ourselves known to each other, are we to become acquainted with the science which this society has been formed to investigate. A science in an eminent degree calculated to elevate the mind, not only as to intellectual perception and reflection, but as to moral growth.

Phrenological science will ultimately dispel the gloom and darknesss that ignorance and prejudice have thrown around us; but for this light we would have been left to wander in the trackless, uncertain, and almost barren wilderness of dogmatical speculation.

To be instrumental in the spread of truth is a a high and ennobling privilege. A privilege which if appreciated, not only raises man in the estimation of his fellow man; but excites within him a fountain from which the purest springs of happiness for ever flow.

It is highly pleasing to think that we have amongst us, those who are capable of diffusing a knowledge of the great principles of our science, and that they are not only willing, but anxious to devote their utmost energies to further the objects of this society.

The disadvantage we have hitherto experienced for want of one to conduct the phrenological studies, your committe is happy to inform you, is not likely again to exist, C. W. Connor, Esqr., having kindly volunteered to give his services to the society on Thursday evenings.

Your committee would strongly urge each member to avail himself of the opportunity of improving the knowledge he may have acquired, and of refreshing his memory, which this course of instruction will afford.

As use is the great end we ought ever to keep in view while we are searching for knowledge; and as Phrenology is a practicable science, applicable to every state into which man may enter, from infancy to second childishness—it is to be hoped that its practical utility will not be overlooked by you—that the lesson of justice, of mercy, and of forbearance, which its doctrines teach, will be allowed to influence your conduct towards others. By thus bringing these principles into practice, the legislature will at length be taught that the principle of evil can more effectually be destroyed by increasing the means of cultivating the good, than by the infliction of pains and penalties.

In directing your attention to the discussion class, your committee regret that its objects have not been so fully carried out as they would have wished, but within the last few weeks it has given evidence of a revival, which they hope will continue; for much benefit may result from this class; especially to those who are desirous of cultivating the art of public speaking.

As a means of diffusing general knowledge, of correcting error, and awakening the mind to a sense of its own deficiencies, discussion classes are of vast importance; they have been the means of bringing out the brightest rays of genius that adorn this world—of giving birth to that power in language, which makes tyrants tremble, and stimulates the noble to do still nobler actions. Your committee are much gratified when they reflect that all their efforts to aid the society have still met with the warm and substantial support of Mr. Fidler; to whom the society owe their deepest gratitude, for the loan of his well selected library during a period of eight months. From him we have also received a present of 250 circulars, the distribution of which we have no doubt will greatly promote the interest of the society.

Our highest mead of praise would be but a poor return for such support as this, It is the re-acting principle which is inherent in good and benevolent deeds that can repay the doer.

All must be conscious of the benefit which a society like this would derive from a well-stocked library. Your committee are sorry that we are so far behind in this department. Our funds are too low to enable us to remedy this by the purchase of books: and they would therefore earnestly solicit the members, individually, to follow the example set by Mr. Fidler, by lending a volume or two for circulation amongst each other. This enterchange of books will greatly increase the interest of the society, and promote a spirit of true benevolence amongst the members.

Thus will our society be not merely a school for the improvement of the intellect, but for the expansion of the heart.

J. Calderwood, Hon. Sec.

Tuesday, February 6th, 1844.

CORRESPONDENCE.

To the Editor of the People's Phrenological Journal.

Sir,—Under present circumstances I scarcely know what apology to offer you for again drawing your attention to the important subject of great talent being, not unfrequently, found in conjunction with small foreheads. Seeing that you have so many pressing demands on your mental nature, and those too of no ordinary character, I conceive that some apology is due. But, trusting to your evident zeal for the promotion of Phrenological science, and the discovery of new truths, I venture to express my disappointment at not finding Mr. Donovan's letter on the same subject, (which appeared in a recent number of the "People's Phrenological Journal") accompanied with some editorial notes, or some subsequent editorial remarks on the views inculcated therein, inasmuch as they are entirely different from what I have always understood from your writings; Mr. Donovan merely combating the general or vulgar notion of what is considered a good forehead; while, on the other hand, you have endeavoured (and I may add, with

no little success) to show the error of a generally reeeived notion in Phrenology ; Mr. Donovan speaking of the development of the reflectives relative to the perceptives only, while you speak of the absolute size of the entire intellectual region relative to the other portions of the head, without regard to what proportion the reflectives may bear to the perceptives ; this last difference producing variety of talent but not degree. These views, as they present themselves to my mind, do certainly differ very widely from each other, yet were allowed to pass into the hands of your readers as identically one and the same thing. I coneeive it not impossible that I may have misunderstood one or both of you. But how, or in what way, I cannot perceive, seeing that each has stated his opinions so explieitly. I wish not to trespass further on your space, or I could bring the disagreeing points and place them in juxta position, and thereby bring them more prominently into view ; but should I be laboring uuder any mistake relative to either, or both, perhaps you will not deem the task of setting me right unworthy of your editorial office.

There is another (apparently) anomalous position in which some of the more intricate questions of Phrenology are sometimes plaeed, to one of whieh I desire to call your attention, before closing this letter. Throughout the whole range of Physiological science, in all its branches, it is maintained as a standard rule or settled maxim, that each organ in the animal economy, never does or can perform more than one function. This matter is considered so well established in Physiologieal science, that reference or appeals are frequently made to it in settling very many disputed questions more or less connected with the sciences of Physiology and Phrenology. With these preliminary remarks, let us see how far this doctrine will agree with mental manifestation. For the purpose of prosecuting the investigation, we will instanee the organ of tune ; which rule will also be applicable to many others if not all the eerebral organs. So far as I am acquainted with the writings of Phrenologists, I am not aware but that it is universally admitted that the sense of Harmony, or that of Melody, is invariably experieneed in proportion to the development of the organ of Tune : but pain and pleasure being distinct and separate from each other, each being really positive and not negative, feels ; how happens it, that pain resulting from discordant sounds, should, also, be proportionate to the development of the one and the same mental organ. It cannot be denied, that pain is as much a positive mental feeling as pleasure is ; and that they are quite as distinct and opposite in their nature as any two mental feelings can possibly be, is self evident ; and if so, does it not look something like one organ performing two functions, and those too, widely differing in their nature. Or we may suppose the same organ differently affected by excitants of opposite qualities. And may this phenomenon not have given rise to the idea in the minds of some phreno-mesmerists of the doctrine of "antagonistic organs," and does it not appear rather to favor their view. And in my opinion phrenologists will be compelled to admit, either that each organ performs something like two elementary functions, or that there is something bearing the semblance of antagonistic forces existing in juxtaposition. The former view, I am aware, is more consonant with the truths of Phrenology, but then how the difficulty of one organ performing two functions, which beset this side of the question, is to be got rid of, I eannot very easily see, for I scarcely think that pain will be eonsidered less a positive feeling than pleasure. Yet here are two feelings of opposite natures invariably existing, in degree and intensity, proportionately to the development of one and the same organ. Whatever may be the solution of this question, you will agree with me, that, in a phrenological point of view, it is deserving of some notice, for, until these somewhat embarrassing positions are in some measure cleared up, our seience must be considered to be yet far distant from the point of ultimate perfection. If these remarks shall lead to further investigation they will have answered all the purposes I could desire. I have the honor to remain,

Your's very respectfully,

ROBERT JONES.

Liverpool, February 7th, 1844.

EXTRACT.

[The following passage, taken from a letter of the Rev. Mr. Baldus, Catholic Missionary in China, published in No. 24 of a work entitled "Annals for the Propagation of the Faith," is extracted for its correspondence with what a phrenologist would be led to expect from the prevailing casts of the Chinese head, which are predominantly developed in the lateral and venerative regions, and very deficient in the social and concentrative.]

"Let the Chinese occupy the first rank amongst the existing pagan nations. It is a glory whieh cannot be disputed with them. But this pre-eminence is less brilliant than is very often supposed: these people, to some qualities which honour them, unite so many defects, that they are very inferior to those European societies, above which certain observers have not hesitated to place them. You shall judge of this yourself.

"Amongst the duties imposed by nature, that which possesses the greatest sway over the Chinese, is the respeet for parents. The father is, in the eyes of his children, like a domestic god: not only are his orders obeyed with punetuality, but even his eaprice is venerated. Does he dissipate his property, they are silent on his prodigality; they even become, should it be required, his auxiliaries or his victims. Does he faney, in the weakness of his old age, to take a second wife whilst the other still lives, this stranger will be received by the family as a second mother. Does he wish to ehastise his son, or beat him through whim, the poor child will anxiously run for the whip with which he is to be beaten.—'My father wills it;' this word is sacred for a son, and however severe may be the paternal will, he constantly accomplishes it with the strietest fidelity. Were he commanded to die, he would still obey. In China, the right of death over the children who displease them is recognised in the parent, and more than once have we witnessed such revolting executions.

"This veneration for the parents does not end with their life: it attends them in the tomb. The children, to say the truth, do not incur all the expenses of the funeral honours. Before dying, the head of the family takes care to have prepared for himself a coffin, more or less sumptuous ac-

cording as he is more or less rich, and this is the noblest inheritance, in the ideas of the people, which he can leave to his descendants. So soon as he has ceased to live, his relations charge themselves with completing the expense and pomp of his funeral. The obsequies which they contrive to give to the dead when they have fortune, are generally a mixture of luxury, superstitions, and noise. During three successive days the bonzees make in memory of the dead so frightful an uproar, that for several nights it is impossible to repose in the neighbourhood. After these stunning lamentations, the body is carried to the mausoleum that awaits it. It is on their own properties that the Chinese erect their sepulchral monuments. It is true that they impoverish themselves in this way, and that the whole space reserved in their domains for burials, is taken from their cultivated grounds; but, nevertheless, they prefer diminishing the extent of their fields, to depositing in a strange soil the remains of their ancestors. These tombs become the object of a religious worship. Each year, at certain periods, the relations, if they are rich, have themselves carried to them in black palanquins. Endless prostrations then take place, and numberless offerings are made to the shade of the deceased, whom they evoke and treat as if they still lived. Every sepulchre consecrated by these ceremonies is inviolable. To cut one of the shrubs that protect it would be a crime, for which, if the profaner were denounced to the mandarins, he would at least be subjected to heavy fines.

"The parents are not less anxious for their family than the family is respectful towards the parents. They are desirous of seeing themselves revived in a numerous posterity. However, the daughters have no share in this attachment of the fathers: their birth is regarded as a domestic calamity; many pagans drown them to save themselves from the trouble of supporting them; and when any of them are reared, the parents regret in some measure the life that is left them, and the bread they consume. But, if it be a boy that heaven grants to the parents, their joy knows no bounds, as also, when he dies prematurely, their grief is inconsolable. The pagans become mad from it, and curse their idols. The Christians themselves become resigned with difficulty; and I have seen some whose faith has been almost shaken by such accidents.

"Notwithstanding all I have just said, we must not believe that the family attachments in the heart of the Chinese proceed to affection. The children have for their parents only a mere legal veneration; and the parents are attached to their children from selfishness. They consider them as the future support of their old age; it is on this account alone that they would fear to lose them. Their attachment for them is almost without love. It is the same thing between the husband and the wife: they are united to each other rather by a feeling of interest than by a bond of affection. What happens from this? That in China the separations, even by death, are regarded with the coldest indifference. They speak without emotion at the moment of death; they laugh in an instant after, and they only grow sad at the visits to which decency condemns them. I am wrong: it is allowed that the women should weep, but they shed tears of ceremony, which flow or are dried at pleasure. Are they called at the moment when they appear most plunged in grief? 'Wait,' they answer, 'Allow me to bewail for an instant more my husband.' As for the husband himself, inability to feel is his peculiarity; he would dishonour himself if he were by accident surprised into bestowing a few tears on the recollection of his spouse.

"No; the Chinese are only imperfectly endowed with the gifts of the heart. In Europe we know what is friendship, the ties which it forms, the effusions that betray it; but here this feeling is unknown. All the hearts live, so to speak, solitary and concentrated in themselves. We can apply to the pagans who surround us what St. Paul wrote of those of his time, that they are men *without affection, sine affectione.*

"It is not, however, that they are wanting in the formula of devotion. They have, on the contrary, constantly on their lips the most expressive protestations. Their manners, which are generally polished, appear also to bear some impression of sensibility; but the heart corresponds not with the exterior: their politeness, at least, in what it may exhibit of affectionate demonstrations, has nothing sincere. They invite you to dine, and they would be very glad that you did not accept the invitation, unless you are disposed to pay your part of the feast; then you would be received as a guest with real delight. It is not rare that, in the hope of being thus indemnified for the expense, friends are called to table, and that, under the appearance of kind and friendly invitation, a speculation of cupidity is concealed. Thus a bachelor at his inauguration will give a banquet, but it is chiefly that he expects from the guests a pecuniary return after the tribute of praise. Thus, also, the mandarins will celebrate in the same year several anniversaries of their birth, and they do this to multiply their gains by multiplying the feasts. As to the dinners of ceremony, as well as those at interments and marriages, it is a matter understood that each one pays for what he eats.

"This love for gold, which is the predominant vice of the Chinese, renders them cheats, unjust, and distrustful. Nothing is sold which may not be counterfeited. With them one should be always distrustful; they are always so themselves. If you make a payment to them, they examine with the closest attention each of the *sapecs* which you give them, and almost upon every one of them they find cause to dispute: they refuse that one because it is too thin; this one because it is split; that other one, because it is blackened: no coin is for them of sufficient alloy. Their disputes upon this point are inevitable, and we are always the victims of them. We, however, prefer sacrificing some farthings to losing our time; that is to say, we do the contrary of what the Chinese do: time is nothing in their eyes—money is every thing; and, rather than depart from a price which they have fixed, rather than give up a miserable *sapec*, they will detain the traveller a whole day at the passage of a river.

"Laziness is allied in the Chinese with the thirst of riches. If they must work in the time of harvest, they repose themselves from this labour all the rest of the year by the most complete idleness; their only occupation is then gaming. At one time they ruin themselves at cards, as we do in Europe; at another time they run to assist by thousands at combats of a new arena; but they are neither gladiators nor lions that fight in the amphitheatre: they are cocks. They rear very large ones, and of different species, for the public

fights; and when they are engaged, they become passionately interested for the champions, and very often enormous wagers are laid.

"But what are these defects of the national character compared to the vice of the laws and of Chinese justice? There exist, no doubt, in the jurisprudence of this people, some excellent principles; but there are some also either so evidently unjust, or so atrocious, that, by dint of being severe, the legislation becomes useless. Such, for example, is the law which punishes parricide. It directs that the mandarin of the place in which a son shall have killed his father, shall lose his revenues; that, of the chief town of the district in which the crime shall be committed, a fourth of the walls and houses shall be razed; that, finally, the city shall be levelled if the same crime be repeated three times. The legislator imagined that so much rigour would be infallibly efficacious. He was deceived; for the criminal who should be mutilated and put to death is not sought for, nor even denounced. What mandarin would discover him, knowing that he will, by this fact alone, be stript of his pensions and place? What inhabitants would not rather see the murderer unpunished, than their home in ruins?

"The Chinese legislation is still worse applied than it is ill conceived. All is arbitrary, venal, and cruel, in the conduct of the magistrates. They proceed in this way:—A native, I shall suppose, has taken a fancy to have his neighbour arrested as a smuggler: he repairs to the city, where he has his denunciation put in writing, and he presents it to the mandarin. It is almost always an opportunity for the magistrate to enrich himself; he declares, therefore, that there is cause to proceed, and forthwith some officers, acting the part of constables, go in the name of the law to summon the accused before the tribunals; but, before bringing him, they take care to exact from him all the expenses of the journey; and because the rate of these charges is not precise and fixed, the tax imposed upon the unfortunate person is enormous. Having arrived in the city where the judge sits, new exactions commence: if required, torture is employed, the accused is hung on a cross, tied with cords, and tormented until he has promised or paid the sum which they wish to extort from him. The price of these cruelties forms the only salary of the servants of justice.

"As for the mandarin, nothing obliges him to hold his audiences publicly; he can make a court of his parlour; and it is there, in effect, that he judges the greater number of causes. He there robs more at ease, and practises despotism with greater impunity. The accuser and accused remain kneeling at the feet of the magistrate; what they are to say to him in this attitude is not what they know, but what pleases him; from the moment that either would attempt, by an indiscreet word, to anticipate the judgment which he has resolved to pronounce, he would be beaten with rods. Truth is not admitted to be heard, only according to the good pleasure of the mandarin.

"If a murder is to be proved, all the agents of the mandarin, that is to say, all the banditti of the country, are set in motion; the mandarin himself hastens to the scene of the crime. Woe then to the purses of the neighbours! woe in particular to the proprietor of the field, upon which the dead body has been found! the murder has been committed on his lands; he is then culpable, and forthwith subjected to extortion.

"But this is not all: it is necessary, the laws command it, that the magistrate shall examine the wound and the bones of the victim, were it even half a century after the burial, in order to see whether the murderer made use of iron, stones, or sticks. If he thinks he has discovered what he sought, the whole province is turned upside down until the fatal instrument is found; then the mandarin posseses himself of it, and shuts it up in a box, from which it will not be taken until sixty years afterwards, to be cast into the flames.

"What chastisement will after this fall upon the guilty? Shall it be death or exile? The emperor alone shall finally determine; and, while awaiting the supreme judgment, there is no fear that the murderer will seek to escape, even though the opportunity should offer. The Chinese are persuaded that, in any place in the world, they could not with hands stained with blood, escape the pursuit of their mandarins, and that, in case the satellites could not reach them, a fatal force would bring them back in spite of themselves to the hands of justice.

"In the midst of this immense population of idolaters what are our Christians doing, and towards what future condition do they tend? Such is the chief question which engages our brethren in Europe: I shall try to answer it.

"It may be recollected that, under the reign of the Emperor Kian-Li, the apostolic ministry, powerfully encouraged by this prince, made numerous conquests in China. The gospel was then preached in the public streets, and as it was an honour to embrace the faith, temples were soon raised on all sides to the true God. At present, to speak properly, there are no churches. Each persecution, decimating in its turn the ranks of the faithful, has left with Jesus Christ only a small portion of his ancient flock; those who profess his holy law are descended, almost entirely, from the first neophytes who were converted in happier times.

"The principal cause of these defections appears to me to be the excessive timidity of the Chinese. Their faith is moreover simple and sincere, their docility is above all praise, and their veneration for the missionary is inspired by the most religious motives; but they are wanting in that energy which makes head against the storm: if they apostatise in the presenence of the mandarin, it is their courage that fails them, and not their belief vanishes. Having returned to the bosom of their families, they resume the practice of the religion they have abjured, without ceasing to cherish it. Witnesses of their falls, which to a certain degree, may be excused by the truly pagan atmosphere that they breathe, we should have towards them only feelings of compassion, if their weakness did not carry in its train irreparable evils. But after the first act of pusillanimity they become still more fearful; the discouragement spreads itself in the mission: scarcely will any one dare require, even in a pressing case of sickness, the ministry of the priest; sometimes it requires all the darkness of the night to give confidence to these tremblers when they come to us. Thus their attendance at instructions is rendered, as it were, impossible; thus, unfortunately separated from us, they find themselves abandoned, without any safeguard, to the allurements and threats of the idolaters.

"These observations, although true, when taken together, admit, however, of more than one exception: although fear forms the ground of the

character of our neophytes, it does not prevail in all in the same degree; you find, even in passing from one province to another, astonishing contrasts. Thus, in the mountains of Kou-Tchen, where I lately resided, nearly a thousand persons used to come, each Sunday and feast day, to hear Mass; although we were known as Missionaries, we could travel without fear, and even walk about with perfect freedom in the district, as a parish priest in the midst of his parish. Last year, a persecution which had arisen elsewhere, extended even to this peaceful retreat, and occasioned the arrest of the Rev. Mr. Perboyre. In the height of the storm, when a hundred soldiers were scouring the country, I remarked amongst our Christians, instead of the fear which might naturally have seized them, only a more generous devotion towards us. They invited me, although sick, and consequently less active in case of flight, to take refuge with them in their houses, and they kept me as in a time of peace. I was sure of finding everywhere an asylum.

"At present, my position is much changed. I am in Honan, at Lou-y-Shien, and the following are some details of my first Mission in this country. Here, although persecution is not spoken of, the faithful are fearful of every thing: I cannot go out of the interior court, where, for greater precaution, I am shut up; yet the master of the house imagines that he already sees his fortune endangered by my presence. What pains have I not taken to have my arrival announced to the Christians scattered through the neighbourhood, and that they should be allowed to come, I do not say to hear instructions, but to confess themselves even once! But what can be done with men who believe they discover in every neophyte a Judas, and in every pagan a spy? with parents who sometimes allow their sons to grow up to the age of twelve years in a total ignorance of religion, and all this through system, for fear, say they, that they might speak of our mysteries and dogmas to the idolaters? Thus a considerable number of families excommunicate themselves, by interdicting to themselves nearly all intercourse with us and with the other Christians. From this insulation to apostacy, the transition is, perhaps, less remote than they think. Every time that I meet any members of those scattered families, I take the opportunity of saying to them, that since they do not wish to come to me, it will be necessary for the fulfilment of my ministry that I go to them, and that in a few days they shall receive a visit from me. Then each one begins to excuse himself, repeating, that he is not worthy to receive me. Valid or not, this excuse must be sufficient for me; for if I would go to their houses against their wishes, I should find none to accompany me; and in case I ventured to go there alone, my first hosts would, on my return, perhaps, refuse to open to me their door. After all, their fears are at times to be respected: upon the slightest pretext a pagan extorts from them money at pleasure; let a false brother be informed of the arrival of the priest, and he will seize the opportunity to revenge himself by denoucing his retreat.

"Several months have passed between the date of the foregoing information, and the happy news that I am about to communicate. The face of this district is entirely changed; I have now only praises to bestow on the Christians of Lou-y-Shien. Such has been their docility to my advice, that I have gained all I wish.

"The sanctification of the Sunday, and attendance at Mass, leaves nothing to be desired. On the eve of the feasts, they rival each other in acquainting their neighbours, lest, through forgetfulness, they might neglect their celebration. The exercise of mental prayer has become familiar to many devout persons, and I hope this pious practice will be continued. The stations of the cross take place every Sunday in a most edifying manner, and with a great effusion of tears; but to those tears I do not attach the most value, since I have been able to know that the Chinese can shed tears at will.

"Now that I am on the point of removing from them, those of my neophytes who formerly saw in my presence a continued subject for alarm, who perplexed themselves to invent some respectful pretext to dismiss me with a refusal, seek, by every sort of means, to retard the moment of our separation: from day to day, from week to week, they defer the preparation for our approaching departure. During my whole sojourn in the Mission, that is, during a considerable time, they have generously maintained me: I render even this testimony of several of them, that, to oblige me, they would have submitted to the greatest sacrifices."

ANSWERS TO CORRESPONDENTS.

R. Jones. — Our correspondent will see in our leading article this week a sufficient excuse for not entering, at present, on the topics suggested in his letter. His other communication has been received. If he wishes to revise it before the appearance of our new work, and will send us an address, we will forward it to him. Or if he prefers leaving the matter to us, we will make the few modifications necessary to adapt it to our new plan. We regret that the accidental omission of the "errata" which he sent us was not observed until it was too late.

R. R. R.—We are happy to learn that we have been instrumental in bringing our correspondent to a belief in Phrenology, as well as to hear of the pleasure and advantage he has already derived from it; and we are much obliged by his thanks and commendations. As to his queries, we think that the peculiarity he alludes to does, in a great measure, spring from the deficient Firmness,but we have not time now to state what we should consider the best mode of counteracting this. We regret that it is wholly impossible for us to comply with the request he makes.

J. W.—It is intended at the completion of the first volume to publish the remainder of Gall's work with greater rapidity.

A Friend has called our attention to the triumph of Dr. Collyer over the anti-mesmeric efforts of Mr. Rumball at Cheltenham, as related in the "Cheltenham Examiner," of February 14th, but the matter was mentioned too late for a more extended notice. We are sorry to see our friend Mr. Rumball still wasting his talents and energies on so hopeless a cause.

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